Manuscript title: *Title: Novel Laccaria species from Juglandaceae forest in Panama with notes on their ecology*

Table S1. Specimen data for molecular phylogenetic datasets. Species described as part of this paper are highlighted in a gray background.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **SpecimenID** | **Genus Species** | **Location** | **Host** | **ITS** | **28S** | **RPB2** | **ef1a** |
| A0051 | *Laccaria* sp. | Japan, Narusawa | Abies sp., Tsuga diversifolia, Larix leptolepis | KU685613 | - | - | - |
| A0544 | *Laccaria japonica* | Japan, Funyu | - | JN942802 | JN939755 | JN993509 | - |
| A0578 | *Laccaria japonica* | Japan, Tsuchiyu | - | JN942783 | - | - | - |
| A2986 | *Laccaria vinaceoalvanea* | Japan, Fushimi | - | JN942810 | JN939738 | JN993520 | - |
| A2987 | *Laccaria* sp. | Japan, Fushimi | - | JN942786 | JN939739 | JN993521 | - |
| A3344 | *Laccaria amethystina* | China | - | KU685627 | - | - | - |
| ALB183 | *Laccaria amethystina* | China, Tibet | - | JX504092 | JX504176 | KU686058 | KU686161 |
| AWW251 | *Laccaria* sp. | Malaysia, Pahang Prov., Frazier's Hill | - | JX504093 | JX504177 | - | - |
| AWW438 | *Laccaria alba* | China, Yunan, Shangrila Co. | - | JX504094 | JX504178 | KU685912 | KU686072 |
| AWW446 | *Laccaria montana* | China, Xizang, Bomi Xian | - | JX504097 | JX504181 | KU686054 | KU686157 |
| AWW463 | *Laccaria himalayensis* | China, Tibet, Linzhi Co. | - | JX504098 | JX504182 | KU685913 | - |
| AWW465 | *Laccaria bullipellis* TYPE | China, Tibet, Linzhi Co. | - | JX504100 | JX504184 | KU685914 | -- |
| AWW484 | *Laccaria himalayensis* TYPE | China, Tibet, Linzhi Co. | - | JX504101 | JX504185 | KU685915 |  |
| AWW485 | *Laccaria acanthospora* TYPE | China, Tibet, Linzhi Co. | - | JX504102 | JX504186 | KU685916 | KU686073 |
| AWW544 | *Laccaria* aff. *bicolor* | USA, IL, Johnson Co. | - | KM067820 | - | **MT431173** | - |
| AWW545 | *Laccaria* aff. *ohiensis* | USA, IL, Johnson Co. | - | JX504106 | JX504190 | KU685917 | - |
| AWW557 | *Laccaria* sp. | USA, CA, Nevada Co. | - | **MT279220** | **MT279200** | **MT431174** | **MT436061** |
| AWW567 | *Laccaria bicolor* | USA, MI, Upper Peninsula | - | KM067824 | KU685765 | - | - |
| AWW572 | *Laccaria* sp. | USA, MI, Upper Peninsula | - | KM067827 | KU685767 | KU685921 | - |
| AWW583 | *Laccaria laccata* | USA, OR, Benton Co. | - | KM067828 | KU685768 | - | - |
| AWW590 | *Laccaria amethysteo-occidentalis* | USA, OR, Benton Co. | - | JX504112 | JX504195 | KU685923 | - |
| AWW591 | *Laccaria* sp. | USA, OR, Benton Co. | - | KM067830 | KU685769 | KU685924 | - |
| AWW595 | *Laccaria* sp. | USA, AK | - | JX504115 | JX504198 | - | - |
| BAP360 | *Laccaria negrimarginata* TYPE | China, Tibet | - | JX504120 | - | - | - |
| Cripps1625 | *Laccaria pseudomontana* TYPE | USA, CO | - | DQ149871 | - | - | - |
| Cripps1771 | *Laccaria pseudomontana* | USA, CO | - | DQ149870 | - | - | - |
| F1061267 | *Hydnangium vinaceoavellanea* | Japan, Tottori | *Castanopsis* | JX504121 | - | - |  |
| F1098987 | *Laccaria bicolor* | USA, NY | *Pinus* | KM067813 | **MT279201** | **MT431175** | **MT436062** |
| F1121424 | *Laccaria striatula* | China | Pinaceae | JX504127 | JX504207 | KU686064 | - |
| F1123822 | *Laccaria amethystea* | USA, WI | *Juniperus* | KU685760 | KU685911 | KU686071 | - |
| GMM7020 | *Laccaria proxima* | Russia, Caucasus | Fagaceae, Pinaceae | KU685652 | KU685795 | KU685938 | - |
| GMM7167 | *Laccaria amethystina* | - | - | KU685655 | KU685798 | - | KU686083 |
| GMM7584 | *Laccaria proxima* | Komorav Forest, Russia | - | KU685717/ KM067833 | KU685858 | KU685999 | KU686120 |
| GMM7586 | *Laccaria striatula* | Komorav Forest, Russia | - | KM067835 | KU685859 | KU686000 | - |
| GMM7596tibet | *Laccaria salmonicola* | China, Tibet | Picea, Larix | JX504143 | JX504218 | KU686045 | KU686151 |
| GMM7602Tibet | *Laccaria salmonicola* | China, Tibet | - | JX504145 | JX504220 | - | - |
| PRL7587 | *Laccaria trullisata* | - | - | KM067882 | JX504247 | KU686047 | KU686153 |
| WCG2072 | *Laccaria trullisata* | - | - | KU685749 | - | KU686044 | KU686150 |
| SB2151 | *Laccaria laccata* | Portugal | - | KM067888/ JX504173 | JX504250 | **MT431176** | **MT436063** |
| GMM7038 | *Laccaria proxima* | Russia, Caucasus | Fagaceae, Pinaceae | **MT279221** | **MT279202** | **MT431177** | **MT436064** |
| SB2135 | *Laccaria laccata* | Portugal | - | JX504172 | JX504249 | KU686028 | KU686140 |
| SB2238 | *Laccaria bicolor* | Portugal | - | KM067892 | KU685886 | KU686030 | - |
| SB2239 | *Laccaria bicolor* | Portugal | - | KM067893 | KU685887 | KU686031 | - |
| GMM6131 | *Laccaria alba* | China | - | JX504131 | JX504210 | KU685930 | KU686079 |
| F1120750 | *Laccaria alba* | China | Pinaceae, Fagaceae | JX504126 | JX504242 | - | - |
| F1133825 | *Laccaria proxima* | USA, MS | Pinaceae, Fagaceae | KU686064 | KU685786 | KU686065 | - |
| F1068333 | *Laccaria amethysteo-occidentalis* | USA, WI | - | KU685629 | KU685773 | KU686061 | - |
| SB2133 | *Laccaria laccata* | Portugal | - | KM067887 | KU685884 | KU686027 | KU686139 |
| SB2210 | *Laccaria laccata* | Portugal | - | KM067890 | KU685885 | KU686029 | KU686141 |
| F1123584 | *Laccaria ochropurpurea* | USA, IL | Quercus | **MT279222** | **MT279203** | - | - |
| F1121451 | *Laccaria laccata* | China | Pinaceae | JX504128 | JX504208 | - | - |
| AWW585 | *Laccaria bicolor* | USA, OR, Benton Co. | - | JX504111 | JX504194 | - | - |
| GMM7607 | *Laccaria bicolorproxima* | Vallon d. Arcillac, France | - | KM067846 | **MT279204** | **MT431178** | **MT436065** |
| GMM7612 | *Laccaria macrocystidia?* | Vallon d. Arcillac, France | - | KM067847 | KU685861 | KU686002 | KU686122 |
| GMM7620 | *Laccaria* sp. | Forest comaniale de Ste. Croix, France | - | KM067854/  JX504149 | JX504223 | **MT431179** | **MT436066** |
| GMM7621 | *Laccaria amethystina* | Forest comaniale de Ste. Croix, France | - | JX504150 | JX504224 | KU686046 | KU686152 |
| GMM7628 | *Laccaria proxima*? | Forest comaniale de Ste. Croix, France | - | KM067857 | KU685867 | KU686008 | KU686127 |
| GMM7631France | *Laccaria bicolor / proxima* | Forest comaniale de Ste. Croix, France | - | KM067858 | KU685869 | KU686010 | KU686129 |
| GMM7733 | *Laccaria trichodermophora* | USA, TX, Tyler Co. | - | KM067870/ JX504157 | JX504230 | KU686013 | - |
| HKAS41483 | *Laccaria angustilamella* TYPE | China, Longling County | *Quercus*, *Lithocarpus* |  | JX504233 | - | - |
| HKAS44062 | *Laccaria bicolor* | China, Yunnan | - | JX504159 | JX504235 | KU686068 | - |
| HKAS45998 | *Laccaria acanthospora* | China, Tibet | - | KU685719 | KU685870 | KU686069 | - |
| HKAS57950 | *Laccaria alba* | China, Tibet | - | JX504166 | JX504242 | - | - |
| HMAS\_264310 | *Laccaria yunnanensis* | China, Yunnan | - | KX496978 | - | - | - |
| HMAS\_271732 | *Laccaria aurantia* | China, Yunnan | - | KX496971 | - | - | - |
| KH\_07192006\_1 | *Laccaria* JP1 | USA, IN | *Quercus* | KU685720 | KU685871 | KU686014 | - |
| KH\_LA06\_002 | *Laccaria amethystina* | USA, LA | *Quercus, Fagus* | KU685759 | KU685910 | KU686059 | KU686162 |
| KU962988 | *Laccaria japonica* TYPE | - | - | KU962988 | - | - | - |
| KU962989 | *Laccaria moshuijun* TYPE |  | - | KU962989 | - | - | - |
| LaAM/08/1 | *Laccaria amethystina* | JGI Genome | - | JGI | JGI | JGI | JGI |
| MB\_FB\_001101 | *Laccaria fulvogrisea* | China, Yunnan | - | JQ670896 | - | - | - |
| MB\_FB\_001107 | *Laccaria yunnanensis* | China, Yunnan | - | JQ670897 | - | - | - |
| MB\_FB\_001109 | *Laccaria aurantia* | China, Yunnan | - | JQ681209 | - | - | - |
| MB\_FB\_001110 | *Laccaria fulvogrisea* | China, Yunnan | - | JQ681210 | - | - | - |
| PRL3777 | *Laccaria ochropurpurea* | USA, IL | - | KU685732 | JX504246 | KU686024 | - |
| PRL4777 | *Laccaria ochropurpurea* | USA, IL | Quercus | KU685733 | KU685883 | KU686025 | - |
| S238N | *Laccaria bicolor* | JGI Genome | - | DQ179123 | - | JGI | JGI |
| MS\_13 | *Laccaria rubroalba* | China | - | KX449360 | - | - | - |
| MS\_28 | *Laccaria rubroalba* | China | - | KX449359 | - | - | - |
| MS\_15 | *Laccaria rubroalba* | China | - | KX449358 | - | - | - |
| MS\_20 | *Laccaria rubroalba* | China | - | KX449357 | - | - | - |
| DED7419 | *Laccaria* sp. | Thailand | Dipterocarpus | KX513839/ KX513840 | KU685770 | KU685925 | KU686075 |
| DED7426 | *Laccaria* sp. | Thailand | Pinus, Dipterocarpus | KU685628 | KU685771 | KU685926 | KU686076 |
| DED7435 | *Laccaria* sp. | Thailand | Dipterocarpus | KX513841 | KU685772 | KU686060 | **MT436067** |
| TWO1166 | *Laccaria* sp. | Thailand, ChaingMai | Castanopsis, Dipterocarps | KU685744 | KU685895 | KU686041 | **MT436068** |
| TWO1168 | *Laccaria* sp. | Thailand, ChaingMai | Castanopsis, Dipterocarps | KU685745 | KU685896 | KU686042 | KU686146 |
| TWO1178 | *Laccaria* sp. | Thailand, ChaingMai | Pinus, Dipterocarpus | KU685746 | KU685897 | KU686043 | KU686147 |
| TWO1184 | *Laccaria* sp. | Thailand, ChaingMai | Castanopsis | KU685747 | KU685898 | - | KU686148 |
| TWO1194 | *Laccaria* sp. | Thailand, Prajenburi | - | KU685748 | KU685899 | - | KU686149 |
| TWO1200 | *Laccaria* sp. | Thailand | - | KU685743 | KU685894 | KU686040 | **MT436069** |
| TWO319 | *Laccaria montana* | - | - | DQ149862 | - | - | - |
| TWO591 | *Laccaria montana* | - | - | DQ149865 | - | - | - |
| DKP303 | *Laccaria violaceotincta* | India TYPE | - | MK141034 | - | - | - |
| ASIS24249 | *Laccaria murina* | Korea, Jeju-do | - | MG519552 | MG519592 | MG551625 | MG551658 |
| SFC20120919-81 | *Laccaria vinaceoavellanea* | Korea, Chungcheongnam-do | - | MG519534 | MG519577 | MG551609 | - |
| SFC20150810-10 | *Laccaria vinaceoavellanea* | Korea, Soul, Gwanak-gu | - | MG519539 | MG519580 | MG551614 | MG551646 |
| TPML20120912-40 | *Laccaria araneosa* | Korea, Gyeongsangbuk-do | - | MG519548 | MG519588 | MG551621 | MG551654 |
| SFC20130917-21 | *Laccaria araneosa* | Korea, Gyeongsangbuk-do | - | MG519549 | MG519589 | MG551622 | MG551655 |
| SFC20120919-05 | *Laccaria parva* | Korea, Soul, Gwanak-gu | - | MG519529 | MG519573 | MG551604 | MG551640 |
| ASIS21282 | *Laccaria parva* | Korea, Gyeonggi-do | - | MG519526 | MG519571 | MG551601 | MG551638 |
| SFC20150902-17 | *Laccaria torosa* | Korea, Gyeongsangbuk-do | - | MG519561 | MG519598 | MG551631 | MG551664 |
| SFC20121010-51 | *Laccaria versiforma* | Korea, Gyeongsangbuk-do | - | MG519555 | MG519593 | MG551626 | MG551659 |
| SFC20120926-01 | *Laccaria versiforma* | Korea, Gyeongsangbuk-do | - | MG519556 | MG519594 | MG551627 | MG551660 |
| F1102432 | *Laccaria amethystea* | CostaRica | Quercus | KU685638 | KU685781 | KU686062 | - |
| F1102433 | *Laccaria gomezii* | CostaRica | Quercus | - | **MT279205** | **MT431180** | **-** |
| F1102471 | *Laccaria major* | CostaRica, San Jose | Quercus | **MT279224** | **-** | - | - |
| F1104722 | *Laccaria calospora* | CostaRica | Quercus | KU685639 | KU685782 | - | - |
| F1111951 | *Laccaria trichodermophora* | CostaRica | Quercus | KU685640 | KU685784 | KU686063 | - |
| F1112018 | *Laccaria amethystina* | CostaRica | Quercus | **MT279225** | **-** | - | - |
| GMM6012 | *Laccaria major* | Costa Rica | Quercus | KU685758 | KU685909 | KU686057 | - |
| GMM6013 | *Laccaria ohiensis* | CostaRica, San Jose | Quercus | **MT279226** | **MT279206** | **MT431181** | **MT436070** |
| GMM6019 | *Laccaria major* | CostaRica, San Gerardo | Quercus | KU685757 | KU685908 | KU686056 | KU686160 |
| GMM6020 | *Laccaria major* | CostaRica, San Gerardo | Quercus | **KM067854 / JX504149** | **JX504223** | **-** | - |
| GMM7173 | *Laccaria gomezii* | - | - | **MT279227** | **MT279207** | **MT431182** | **MT436071** |
| GMM6021 | *Laccaria gomezii* | - | - | **MT279228** | **-** | - | - |
| GMM6022 | *Laccaria gomezii* | - | - | KU685644 | - | - | - |
| GMM6023 | *Laccaria ohiensis* | CostaRica, San Gerardo | Quercus | **MT279229** | **MT279208** | **MT431183** | **MT436072** |
| GMM6585 | *Laccaria* sp. | CostaRica, San Gerardo | Quercus | KU685647 | KU685791 | KU685933 | - |
| SYC109 | *Laccaria stellata* | Panama, Fortuna | *Quercus insignis* | KP877340 | - | - | - |
| SYC702 | *Laccaria stellata* | Panama, Fortuna | *Quercus insignis* | KP877339 | - | - | - |
| DM121 | *Laccaria squarrosa* | Mexico: Veracruz | *Fagus grandifolia* | MF669960 | MF669967 | - | - |
| DM63 | *Laccaria squarrosa* TYPE | Mexico: Veracruz | *Fagus grandifolia* | MF669958 | MF669965 | - | - |
| DM93 | *Laccaria squarrosa* | Mexico: Veracruz | *Fagus grandifolia* | MF669959 | MF669966 | - | - |
| VB4678 | *Laccaria roseoalbescens* | Mexico | *Quercus, Carpinus* | KJ590509 | KJ590510 | - | - |
| PG03 | *Laccaria roseoalbescens* | Mexico | *Quercus, Carpinus* | KJ874329 | KJ874332 | - | - |
| LM5042 | *Laccaria roseoalbescens* | Mexico | *Quercus, Carpinus* | KJ874327 | KJ874330 | - | - |
| LM5099 | *Laccaria roseoalbescens* | Mexico | *Quercus, Carpinus* | KJ874328 | KJ874331 | - | - |
| VB4677 | *Laccaria roseoalbescens* | Mexico | *Quercus, Carpinus* | KJ590508 | KJ590511 | - | - |
| GMM6016 | *Laccaria ohiensis* | CostaRica, San Jose | *Quercus* | **MT279230** | **MT279209** | **MT431184** | **MT436073** |
| Corrales\_27 | *Laccaria stellata* | Panama | *Oreomunnea mexicana* | **MT279231** | **MT279210** | **MT431185** | - |
| Corrales\_576 | *Laccaria stellata* | Panama | *Oreomunnea mexicana* | **MT279232** | **-** | - | - |
| Corrales\_467 | ***Laccaria nitrophila*** | Panama | *Oreomunnea mexicana* | **MT279233** | **-** | - | - |
| Corrales\_547 | ***Laccaria nitrophila*** | Panama | *Oreomunnea mexicana* | **MT279234** | **-** | - | - |
| Corrales\_423 | ***Laccaria nitrophila*** | Panama | *Oreomunnea mexicana* | **MT279235** | **-** | - | - |
| Corrales\_595 | ***Laccaria nitrophila*** | Panama (TYPE) | *Oreomunnea mexicana* | **MT279236** | **MT279211** | **MT431186** | **MT436074** |
| Corrales\_646 | ***Laccaria dallingii*** | Panama | *Oreomunnea mexicana* | **MT279237** | **MT279212** | **-** | **MT436075** |
| Corrales\_543 | ***Laccaria dallingii*** | Panama | *Oreomunnea mexicana* | **MT279238** | **MT279213** | **MT431187** | **MT436076** |
| Corrales\_457 | ***Laccaria dallingii*** | Panama | *Oreomunnea mexicana* | **MT279239** | **-** | - | - |
| Corrales\_571 | ***Laccaria dallingii*** | Panama (TYPE) | *Oreomunnea mexicana* | **MT279240** | **MT279214** | **-** | - |
| Corrales\_397 | ***Laccaria dallingii*** | Panama | *Oreomunnea mexicana* | **MT279241** | - | - | - |
| Corrales\_262 | ***Laccaria dallingii*** | Panama | *Oreomunnea mexicana* | **MT279242** | **-** | - | - |
| Ovrebo 5293 | ***Laccaria dallingii*** | Panama | *Oreomunnea mexicana* | **MT279243** | **-** | - | - |
| Corrales\_268 | *Laccaria* PAN3 | Panama | *Oreomunnea mexicana* | **MT279244** | **MT279215** | **MT431188** | **MT436077** |
| Corrales\_25 | ***Laccaria*** [***fortunensis***](http://www.mycobank.org/BioloMICSDetails.aspx?Rec=579956) | Panama | Oreomunnea mexicana | **MT279245** | **-** | - | - |
| Corrales\_74 | ***Laccaria*** [***fortunensis***](http://www.mycobank.org/BioloMICSDetails.aspx?Rec=579956) | Panama (TYPE) | Oreomunnea mexicana | **MT279246** | **-** | - | - |
| Corrales\_75 | ***Laccaria*** [***fortunensis***](http://www.mycobank.org/BioloMICSDetails.aspx?Rec=579956) | Panama | Oreomunnea mexicana | **MT279247** | **-** | - | - |
| Corrales\_274 | *Laccaria* aff. *roseoalbescens2* | Panama | Oreomunnea mexicana | **MT279248** | **MT279216** | **-** | **MT436078** |
| Corrales\_70 | *Laccaria* aff. *roseoalbescens2* | Panama | Oreomunnea mexicana | **MT279249** | **MT279217** | **-** | **MT436079** |
| Ovrebo5332 | *Laccaria* aff. *roseoalbescens1* | Panama | Oreomunnea mexicana | **MT279250** | **MT279218** | **-** | **MT436080** |
| Corales\_676A | *Laccaria* sp. | Panama | Oreomunnea mexicana | - | **MT279219** | - | - |
| O\_mexicana\_roots | *Laccaria* sp. | Panama | Oreomunnea mexicana | KM595030 | - | - | - |
| O\_mexicana\_roots | *Laccaria* sp. | Panama | Oreomunnea mexicana | KM594869 | - | - | - |
| O\_mexicana\_roots | *Laccaria* sp. | Panama | Oreomunnea mexicana | KM594870 | - | - | - |
| O\_mexicana\_roots | *Laccaria* sp. | Panama | Oreomunnea mexicana | KM594892 | - | - | - |
| O\_mexicana\_roots | *Laccaria* sp. | Panama | Oreomunnea mexicana | KM594912 | - | - | - |
| O\_mexicana\_roots | *Laccaria* sp. | Panama | Oreomunnea mexicana | KM594925 | - | - | - |
| O\_mexicana\_roots | *Laccaria* sp. | Panama | Oreomunnea mexicana | KM595045 | - | - | - |
| O\_mexicana\_roots | *Laccaria* sp. | Panama | Oreomunnea mexicana | KM594950 | - | - | - |
| O\_mexicana\_roots | *Laccaria* sp. | Panama | Oreomunnea mexicana | KM594954 | - | - | - |
| O\_mexicana\_roots | *Laccaria* sp. | Panama | Oreomunnea mexicana | KM595048 | - | - | - |
| O\_mexicana\_roots | *Laccaria* sp. | Panama | Oreomunnea mexicana | KM594962 | - | - | - |
| O\_mexicana\_roots | *Laccaria* sp. | Panama | Oreomunnea mexicana | KM594997 | - | - | - |
| O\_mexicana\_roots | *Laccaria* sp. | Panama | Oreomunnea mexicana | KM595049 | - | - | - |
| O\_mexicana\_roots | *Laccaria* sp. | Panama | Oreomunnea mexicana | KM594982 | - | - | - |
| O\_mexicana\_roots | *Laccaria* sp. | Panama | Oreomunnea mexicana | KM594835 | - | - | - |
| O\_mexicana\_roots | *Laccaria* sp. | Panama | Oreomunnea mexicana | KM594848 | - | - | - |
| O\_mexicana\_roots | *Laccaria* sp. | Panama | Oreomunnea mexicana | KM594856 | - | - | - |
| GMM7402 | *Laccaria* Q1 | Queensland | Allocasuarina, Eucalyptus | KU685688 | KU685832 | KU685974 | KU686106 |
| GMM7403 | *Laccaria* Q1 | Queensland | Allocasuarina, Eucalyptus | KU685689 | KU685833 | KU685975 | KU686107 |



Figure S1.

ITS only dataset using RAxML analysis with 1000 bootstrap replicates. NTAX = 166. Colored terminals identify *Laccaria* species from Panama. Blue *L.*

[*fortunensis*](http://www.mycobank.org/BioloMICSDetails.aspx?Rec=579956); purple *L. dallingii*; orange *L. nitrophilous*; red *L. roseoalbescens*; dark green *L. stellata*; light green *Laccaria* ECM from *Oreomunnea mexicana* roots.



Figure S2.

28S only dataset using RAxML analysis with 1000 bootstrap replicates. NTAX = 110. Colored terminals identify *Laccaria* species from Panama. Blue *L. fortunensis*; purple *L. dallingii*; orange *L. nitrophilous*; red *L. roseoalbescens*; green *L. stellata*.



Figure S3.

RPB2 only dataset using RAxML analysis with 1000 bootstrap replicates. NTAX = 83. Colored terminals identify *Laccaria* species from Panama. Blue *L. fortunensis*; purple *L. dallingii*; orange *L. nitrophilous*; red *L. roseoalbescens*; green *L. stellata*.



Figure S4.

EF1a only dataset using RAxML analysis with 1000 bootstrap replicates. NTAX = 58. Colored terminals identify *Laccaria* species from Panama. Blue *L. fortunensis*; purple *L. dallingii*; orange *L. nitrophilous*; red *L. roseoalbescens*.

*Laccaria* of Panama Combined Dataset. Aligned in FASTA gapped format.

>A0051\_Laccaria\_sp\_JAPAN\_KU685613\_\_\_

CCTGA-TGTGACTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCATCATCTTTAATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATCGCCG-----------------TCGGCTTTTCTTTCATTTTC-AAGACTATGTTCT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAAC--------T-TTCATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCGGGCTTC-AT---------CACGAAGTCGGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT---GAAGTT-CAGCTTCT-AACCGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGA-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>A0544\_Laccaria\_japonica\_JAPAN\_JN942802\_JN939755\_JN993509\_

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCATCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATCGCCG------------------TGGCTTTCCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTTATC-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC----TTTTT-TTTATTAGCTTGG--TTTGGCTTGGA-TGT-GGGTG--TTGCAGGCTTC-AT-----T---AATGAGGTCGGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTATAT-ATGAAGTT-CAGCTTCT-AACCGTCC---ATTGACTTGGACAA----TTTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGGGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCACGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTTGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACACTGGTTGGGATTGAGGAACTCAGCATGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGTATGCTTTTCCGGAAGTTAACCAAGGACGTTTATCGTTATCTACAAAAGGTTGTTGACCTTCGTTCAAGTGTC-----ATGAGATGTGCTGA-CCCC------TCTTCAGTGCGTCGAGACACACAAGGAATTCAACCTTGCCCTTGCAGTTAAGCACCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGAGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCCACCCTGTCACATCTTCGTCGGTGTAACACCCCTCTAGGGCGCGAGGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACCCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCCCTTATGGCGTGTATATCAGTCGGGTCTTACTCCGCGCCCGTTATCGAGTTTTTGGAGGAGTGGGGATTGGAGTCATTGGAAGAAAACGCACATTCATCGACACCTTGCACAAAAGTTTTCGTGAACGGTGTCTGGATGGGTGTGCATCGCGATCCTGCCAATTTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGACGACATCAGCCCGGAAGTGTCAGTTGTGCGAGATATCAGGGAGAAGGAATTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTTAAATGGCTCAGTAACGGCGTCAACGATGATGGCGACGAGTACAAATGGGAACATCTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCTGAGGAAGAGGAAACGGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGTGTTGACCCTCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGTACTCACGCACACACATGGACACATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGTGCCAGCATTATTCC-TTCCCTGATCAT------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>A0578\_Laccaria\_japonica\_JAPAN\_JN942783\_\_\_

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCATCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATCGCCG------------------TGGCTTTCCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTTATC-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC----TTTTT-TTTATTAGCTTGG--TTTGGCTTGGA-TGT-GGGTG--TTGCAGGCTTC-AT-----T---AATGAGGTCGGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTATAT-ATGAAGTT-CAGCTTCT-AACCGTCC---ATTGACTTGGACAA----TTTTTGACAA-TTTGA-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>A2986\_Laccaria\_vinaceoalvanea\_JAPAN\_JN942810\_JN939738\_JN993520\_

-CTGA-TGTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGC-CCATCATCTTT-ATCTCT--CCA-CCTGTGCACCTTTTGTAGTC-TT-GAATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATTGCCGTGC-TTTATACACAAAGTCGGCTTTTCTTTCATTTTC-AAGACTATGTTTT---CT--A-TACACA-CCAAAGTATGTTTAAAGAACGTCATC-AATAGGAAC---TTGTTTCCTA--TAAAAACTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAACCTTTCCAGC--------T-TTTATTAGTTTGG--TCAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----T-------TAGTCTGCTCTCCTTAAATRCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACACCGTGGAT-GTAAAGCAGTTTTTAT-AAAAAGTT-CAGCTCCT-AACTGTCC---ATTGAC-TGGACAA-----TTTTGACAA--TTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGCATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTACCAGGGCTTTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTATTTTCTGGTCAATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTTGGATGTGTTATAGCCTTTGTTCGCATACATCAGTTGGGATTGAGGAACTCAGCACGCCGAAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTTGGTGAAAAACCAGAGTGCATAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATCGACGCCCAGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTTCGCATGCTTTTCCGAAAGTTGACCAAGGACGTTTATCGATATCTACAAAAGGTTGCTGAGCTTTGCCCAAGTGCC-----ATGAGATGTGCTGA-CCCCTCT---TCTTCAGTGCGTCGAGACCCACAAGGAATTCAATCTTGCTCTCGCAGTGAAGCACCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGGGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGGGTATCTCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACATCTTCGTCGATGTAACACTCCTCTAGGACGCGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAATACTCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTAGCTCTTATGGCATGCATATCAGTCGGGTCTTACTCCGCACCCGTTATTGAGTTTTTGGAGGAGTGGGGGTTGGAGTCATTGGAAGAGAACGCACACTCAACGACACCTTGCACAAAAGTTTTCGTGAACGGTGTCTGGATGGGTGTGCACCGTGATCCTGCCAACTTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGATGACATCAGCCCAGAAGTGTCTGTTGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTATACCGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGTTGGCACTTCAGAAGAAGCACGTCAAGTGGCTCAGCAACGGCCTCAATGATGATGGCGACGAGTATAAATGGGAACATCTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCGGAGGAAGAGGAAACAGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCCCGCCTACAGCAAAGTGGCGTTGATCCTCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCACGCACACACATGGACACATTGCGAGATTCATCCTAGCATGATTCTTGGCATTTGTGCCAGCATTATTCC-TTCCCTGATCAT------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>A2987\_Laccaria\_sp\_JAPAN\_JN942786\_JN939739\_JN993521\_

CCTGA-TGTGACTGTTAGCTGGC-TTTTCAAAGCATGTGCTCGT-CCGTCATCTTTAATCTCT-CCCA-CCTGTGCACATTTTGTAGTC-TT-GAATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATCGC---------------CAAGTTGGCTTTCCTTTCACTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATT-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATAAGCTTGG--TTAGGCTTGGA-TGT-GGGAG--TTGCGGGCTTC-AT-----C---AATGAGGTCGGCTTTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAACAG-CTTTAT---GAAGTT-CAGCTTCG-AACCGTCC---ATTCACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCACGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTAG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCACATATATCAGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGCATGCTTTTCCGAAAGTTGACCAAGGACGTTTATCGTTACCTACAAAAGGTTGCTGACCTTCGCTCAAGTGCT-----GTGAGATGTGCTGA-CCTCTCT---TCTTCAGTGCGTCGAAACCCACAAGGAGTTCAACCTTGCCCTTGCAGTTAAGCACCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGAGACCAGAAAAAATCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACATCTTCGTCGGTGTAACACCCCTCTAGGGCGCGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACTCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCCTGTGGGCTTGTCAAGAACCTCGCTCTTATGGCGTGCATATCAGTCGGGTCTTACTCCGCGCCCGTTATCGAGTTTTTGGAGGAGTGGGGATTGGAGTCATTGGAAGAGAACGCGCACTCATCAACACCTTGCACAAAAGTTTTCGTGAACGGTGTGTGGATGGGTGTGCATCGCGATCCTGCCAACTTGGTGAAGACGATAAAGAAATTGAGAAGAAAAGACGACATTAGTCCAGAAGTGTCAGTTGTGCGAGACATCAGGGAGAAAGAACTGAGGTTGTACACAGACGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAATGATGATGGCGATGAGTACAAATGGGAACATCTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCTGAGGAAGAGGAAACAGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCTTACAACAAAGTGGTGTTGATCCTCACGCGAATGACGGCGAGTTTGATCCAGCAGCTCGTTTGAAGGCTGGCACTCACGCGCACACATGGACACATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGTGCCAGCATTATTCC-TTCCCTGATCAT------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>A3344\_Laccaria\_amethystina\_CHINA\_KU685627\_\_\_

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCGGAGCATGTGCTCGT-CCGTCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATCGCTGTGC---TGT---ACAAGTCAGCTTTCCTTTCATTTCC-AAGACTATGTTTT-------A-TATACACCCAAAGTATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGAG--TTGTGGGCTTC-AT-----T---AATGAGGTCAGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAGCTTTTAT---GGAGTT-CAGCTTCT-AACTGTCC---ATTGACTTGGACAA---ATTTTTGACAA-TTTGA-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>ALB183\_Laccaria\_amethystina\_CHINA\_TIBET\_JX504092\_JX504176\_KU686058\_KU686161

CCTGA-TGTGACTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCGTCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATCGCTGTGC---TGT---ACAAGTTGGCTTTCCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTTATC-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC-------TT-TTTATTAGCTTGG--TTTGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----T---AATGAGGTCGGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT-ATGAAGTT-CAGCTTCT-AACCGTCC---ATTGACTTGGACAA----TTTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGGGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC-----TTTTT---GCTTGGCTTACTTTCTGGTTAATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCcGCATGCTTTTCcGgAaGTTAaCcAaGGACGTTTATCGCTATTTACAAAAGGTTGCTGACCTTCGTTTAaGTGCC-----ATGAGATGTGCTGA-CCCCTTT---TTTTCAGTGCGTCGAGACCCACAAGGAGTTCAACCTTGCCcTTGCAGTTAAGCATCAAACCATCACAAATGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGTGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCCACCTTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGGCGCGAGGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACTCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCCCTTATGGCGTGCATATCAGTCGGGTCTTATTCCGCGCCCGTTATCGAGTTTTTGGAAGAGTGGGGATTGGAGTCATTGGAAGAAAACGCACACTCATCGACACCTTGCACAAAAGTTTTCGTGAACGGTGTCTGGATGGGTGTGCATCGCGATCCTGCCAATTTGGTCAAGACGATAAAGAAATTGAGAAGGAAAGACGACATCAGCCCAGAAGTATCAGTTGTGCGAGACATTAGGGAGAAGGAACTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAARTGGCTCAGTAACGGTCTCAACGATGATGGCGACGAGTACAAATGGGAGCACCTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCTGAGGAAGAGGAAACGGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGTGTTGATCCTCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCACGCACACACATGGACACATTGCGAAATTC--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------ATCTCA-TGCAGTGGAGCGAGGATCGTTTCAACGAAATCGTCAAGGAGACGTCAaCCTTCATCAAGAAGGTTGGTTACAACCCCAAGGCCGTTGCCTTTGTCCCTATTTCCGGCTGGCACGGTGACAACATGTTGGAGGAGTCCGCTAAGTGAGCATTC--TTGTATCGTGATGGTTACCCCGTCGCTCATGTTGCACTT-AGCATGCCTTGGTACAAGGGCTGGACCAAGGAAACCAAGGCTGGTGTCGTCAAGGGCAAGACCCTCCTCGATGCTATTGATGCCATTGAGCCCCCCGTCCGACCTTCCGACAAACCCCTCCGTCTGCCCCTCCAGGATGTCTACAAAATTGGCGGTATTGGAACTGTGCCCGTCGGTCGTGTTGAGACTGGTATCATCAAGGCCGGAATGGTCGTCACTTTCGCGCCCTCCAACGTCACCACTGAAGTTAAGTCCGTCGAAATGCATCACGAACAGCTCGAGCAGGGTAACCCTGGTGACAATGTCGGTTTCAACGTCAAAAACGTGTCAGTGAAGGATATTCGTCGTGGCAACGTGGCCTCCGACTCCAAGAACGATCCCGCCAAGGAAGCGGCCTCTTTCAACGCACAGGTCATCGTCCTCAACCACCCTGGTCAAATTGGTGCTGGTTACGCCCCAGTTCTCGACTGTCACACCGCCCACATCGCTTGCAAGTTCGCCGAGCTCATCGAGAAGATTGATCGTCGTACGGGTAAATCTATCGAAAACTCACCTAAATTCGTCAAGTCGGGTGACGCCTGCATCGTCAAGCTCGTTCCCAGCAAGCCTATG

>AWW251\_Laccaria\_\_MALAYSIA\_JX504093\_JX504177\_\_

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCGAGGCATGTGCTCGC-CCATCATCGTT-ATCTCT--CCA-CCTGTGCAC-TTTTGTAGTCTTT-GAATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATTGCCGTGC-----TGTACAAAGTCGGCTTTTCTATCATTTTC-AAGACTATGTTTT----TCTA-TACACA-CCAATGTATGTTTAAAGAATGTCGTC-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAACCTTTCCAGA--------TCTTTATTAGTCTGG--TCAGGCTTGGA-TGT-GGGGG-TTTGCAGGTTTT------------TATGAGATCTGCTCTCCTTAAATGCATTAGTGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACACCGTAGAT-GTAAAACAG-TTTTAT---AAAGTT-TAGCTTCT-AACTGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGACGGT--CTTGTCTGT-CCGAGTTGTAATCTAGAGAAGCATTATCCGCGTTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTAACACGGACTGCCAGGGCTTTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGTGATCAA-CCTTGC---TTTTTTT---GCTTGGCTTATTTTCTGGTCAATGTG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAAGGAATGTGGCAT-CCTTGGATGTGTTATAGCCTTTGTTCGCATACATCAGTTGGGATTGAGGAACTCAGCACGCTGAAAGGCCGGGTTTTTTTAAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCAAGTGTTTTGGTGAAAAACCAGAGCGCATAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATCGACGCCCAGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGT-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>AWW438\_Laccaria\_alba\_CHINA\_JX504094\_JX504178\_KU685912\_KU686072

CCTGA-TGTGACTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCATCATCTTTAATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTGTCGAGGCAA-CTCGGATT---TTTAG-GATCGCCGTGC---TGT---ACAAGTCGGCTTTTCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATT-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAAC--------T-TTTATTAGCTTGG--ATAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----C---AATGAGGTCAGCTCTTCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GAGAAACAG-CTTTAT---CAAGTT-CAGCTTCT-AACCGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCGAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCATTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTTGATGGG-TCAGCATCAATTTTGACTGGTAG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCACATATATCAGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCATGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGCATGCTTTTCCGAAAGTTGACCAAGGACGTTTATCGTTATCTACAAAAGgttgctgaccttcgctcaagtYtc-----atgagatatgctga-cccctct---tcttcagTGCGTCGAGACCCACAAGGAGTTCAACCTTGCCCTTGCAGTTAAGCATCAAACCATYACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGAGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTYTTGAACAGATACACATATGCATCCACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGGCGCGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACTCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCCCTTATGGCGTGCATATCAGTCGGGTCTTACTCCGCGCCCGTTATCGAGTTTTTGGAGGAGTGGGGATTGGAGTCATTGGAAGAGAACGCGCACTCATCAACACCTTGCACAAAAGTTTTCGTGAACGGTGTCTGGATGGGTGTGCATCGTGATCCTGCCAATCTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGACGACATTAGCCCAGAAGTGTCAGTTGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTCTTCATTGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGCGACGAGTACAAATGGGAACATCTAGTAAAGGGTGGCATCATCGAGTTACTGGATGCTGAGGAAGAAGAAACAGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAGAGTGGTGTTGATCCTCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCACGCACACACATGGACACATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGTGCCAGCATTATTCCTTTCCCTGATCATCTGCGCCATTCTCATCATTGCTGGTGGCACTGGTGAGTTCGAGGCTGGTATCTCCAAGGATGGCCAGACCCGCGAGCACGCCCTCCTCGCTTTCACCCTCGGTGTGCGGCAACTCATCGTTGCCGTCAACAAGATGGACACCACTAAGGTAAGAAACGTTCCAC-CTATAGTTAGGCTTCTTACACATTCTCATCATCTCA-TGTAGTGGAGCGAGGACCGTTTCAACGAAATTATCAAGGAGACGTCAACCTTCATCAAGAAGGTTGGTTACAACCCAAAGGCTGTTGCCTTTGTCCCTATTTCCGGCTGGCACGGCGACAACATGTTGGAGGAGTCCGCTAAGTAAGCATTC--TCGTATCATCATGATCGCCCCGTCGCTCATGTTGCACACAAGCATGCCTTGGTACAAGGGCTGGACCAGGGAGACCAAGGCTGGTGTCGTCAAGGGCAAGACTCTCCTCGATGCTATTGATGCCATTGAACCCCCCGTCCGACCTTCCGACAAACCCCTCCGTCTCCCCCTCCAGGATGTCTACAAAATTGGCGGTATCGGAACTGTGCCCGTCGGTCGTGTTGAGACTGGTATCATCAAGGCCGGAATGGTCGTCACTTTCGCTCCCTCCAACGTCACCACTGAAGTCAAGTCCGTCGAAATGCATCACGAACAGCTCGAGCAGGGTAATCCTGGTGACAATGTCGGTTTCAATGTCAAGAACGTGTCAGTAAAGGATATTCGTCGTGGCAACGTGGCCTCCGACTCCAAGAACGATCCGGCCAAGGAAGCAGCCTCTTTCAAYGCACAGGTCATTGTCCTCAACCACCCTGGTCAAATTGGTGCTGGTTACGCCCCAGTTCTCGACTGTCACACTGCCCACATCGCCTGCAAGTTCGCCGAGCTCATCGAGAAGATCGATCGTCGTACGGGTAAATCCATCGAAAACTCGCCTAAATTTGTCAAGTCGGGTGACGCCTGCATCGTCAAACTCGTTCCCAGCAAGCCTATG

>AWW446\_Laccaria\_montana\_CHINA\_JX504097\_JX504181\_KU686054\_KU686157

CCTGA-TGTGACTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCGTCATCTTTAATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATCGCCGTGC---TGT---AAAAGTCAGCTTTCCTCTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGTGGGCTTC-AT-----T---AATGAGGTCAGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT---GAAGTT-CAGCTTCT-AATCGTCC---ATTGACTTGGACAA----TTTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCCCCTGGAATGGGGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCACATACATCAGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGCATGCTTTTCCGAAAGTTGACCAAGGACGTTTATCGTTATCTACAAAAGgttgctgaccttcgctcaagtgcc-----atgagatgtgctgaccccctct---tcttcagTGCGTCGARACCCACAAGGAGTTCAACCTTGCCCTTGCAGTTAAGCATCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGAGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCRCATCTTCGTCGGTGTAACACTCCTCTGGGGCGCGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACTCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAAYCTCGCCCTTATGGCGTGCATATCAGTCGGGTCTTACTCTGCGCCCGTTATCGAGTTTTTGGAGGAGTGGGGATTGGAGTCGTTGGAAGAGAAYGCGCACTCATCAACACCTTGCACMAAAGTTTTCGTGAACGGTGTCTGGATGGGTGTGCATCGCGATCCTGCCAATTTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGACGACATTAGCCCAGAAGTGTCAGTCGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGATAACCAACAGCTGGCACTTCAGAAGAAGCAYGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGCGACGAGTACAAATGGGAGCATCTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCTGAGGAAGAGGAAACAGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCYTACAGCAAAGTGGTGTTGATCCTCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCACGCACACACATGGACACATTGCGAAATTCATCCTAGCATGATTCTTGGCATYTGTGCCAGCATTATTCCTTTCCCTGATCATTTGCGCCATTCTCATCATTGCTGCTGGTACTGGTGAGTTCGAGGCTGGTATCTCCAAAGATGGCCAGACCCGCGAGCACGCTCTCCTCGCTTTCACCCTCGGTGTGCGGCAACTCATCGTTGCCGTCAACAAGATGGACACCACTAAGGTAAGAAACGTTTCAC-TTATAGTTAGGCTTCTTGCACATTCTCATCATCTCA-TGTAGTGGAGCGAGGACCGTTTCAACGAAATCATCAAGGAGACGTCAACCTTCATCAAGAAGGTTGGTTACAACCCCAAGGCCGTTGCCTTTGTCCCTATTTCCGGCTGGCACGGTGACAACATGTTGGAGGAGTCCCCTAAGTAAGCATTC--TCGTATCGTCATGATCGCCCCGTCGCTCATGTTGCACTCAAGCATGTCTTGGTACAAGGGCTGGACCAAGGAGACCAAGGCTGGTGTCGTCAAGGGCAAGACCCTCCTCGATGCTATTGATGCCATTGAGCCCCCCGTCCGACCTTCCGACAAACCCCTCCGTCTCCCTCTTCAGGATGTCTACAAAATTGGCGGTATCGGAACTGTGCCCGTCGGTCGTGTTGAGACTGGCATCATCAAGGCCGGAATGGTCGTCAATTTCGCTCCCTCCAACGTTACCACTGAAGTCAAGTCCGTCGAAATGCATCACGAACAGCTCGAGCAGGGTAACCCTGGTGACAATGTCGGTTTCAACGTCAAAAACGTGTCAGTGAAGGATATCCGTCGTGGCAACGTGGCCTCCGACTCCAAGAACGATCCCGCCAAGGAAGCGGCCTCTTTCAACGCACAGGTCATCGTCCTCAACCACCCTGGTCAAATTGGTGCTGGTTACGCCCCCGTTCTCGATTGTCACACCGCCCACATCGCCTGCAAGTTCGCCGAGCTCATCGAGAAGATCGATCGTCGTACGGGTAAATCCATTGAAAACTCGCCTAAATTCGTCAAGTCGGGTGACGCCTGCATCGTCAAGCTCGTTCCCAGCAAGCCTATG

>AWW463\_Laccaria\_himalayensis\_CHINA\_JX504098\_JX504182\_KU685913\_

CCTGA-TGTGGCTGTTAGCTGGCTTTTTTGAAGCATGTGCTCGT-CCGTCATCTTTAATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGAAA-CTCGGATT----TTAG-AATCGCCGTGC---TGT---ACAAGTCGGCTTTCCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAATGTATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGTGGGCTTC-AT-----T---ATTGAGGTCGACTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCTGTGGAT-GTGAAGCAG--------------TT-CAGCTTCT-AACCGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCACGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTTGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATCAATTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTATCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGCATGCTTTTCCGAAAGTTGACCAAGGACGTTTATCGTTACCTACAAAAGgttgctgaccttcgttcaagtgcc-----atgagatgtgctca-cccctct---ttttcagTGTGTCGAGGCCCACAAGGAGTTCAACCTTGCCCTTGCAGTTAAGCATCAAACCATCACGAACGGCCTCAAATACTCTCTGGCGACAGGCAACTGGGGAGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCGTCCACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGGCGCGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACTCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCCCTTATGGCGTGCATATCAGTCGGGTCTTACTCCGCGCCCGTTATCGAGTTTTTGGAGGAGTGGGGATTGGAGTCTTTGGAAGAGAACGCACACTCATCGACACCYTGCACAAAAGTTTTCGTGAACGGTGTCTGGATGGGTGTGCATCGCGATCCTGCCAATTTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGACGACATCAGCCCAGAAGTGTCAGTTGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACCGATGCTGGACGCGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGCGACGAGTACAAATGGGAACATCTGGTAAAGGGTGGAATCATTGAGTTACTGGATGCTGAGGAAGAGGAAACAGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGTGTTGATCCTCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCACGCACACACATGGACACATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGTGCCAGCATCATTCCTTTCCCTGATCAT------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>AWW465\_Laccaria\_bullipellis TYPE\_CHINA\_JX504100\_JX504184\_KU685914\_

CCTGA-TGTGGCTGTTAGCTGGCTTTTTCGAAGCATGTGCTCGT-CCGTCATCTTTAATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGAAA-CTCGGATT----TTAG-AATCGCCGTGC---TGT---ACAAGTCGGCTTTCCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGTGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGTGGGCTTC-AT-----T---AATGAGGTCGACTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCTGTGGAT-GTAAAGCAG--------------TT-CAGCTTCT-AACCGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCACGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTTGATGGG-TCAGCATCAATTTTGACTGGTGGAAAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATCAATTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTATCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGCATGCTTTTCCGAAAGTTGACCAAGGACGTTTATCGTTATCTACAAAAGgttgctgaccttcgttcaagtgcc-----atgagatgtgctga-cccctct---ttttcagTGTGTCGAGGCCCACAAGGAGTTCAACCTTGCCCTTGCAGTTAAGCATCAAACCATCACGAACGGCCTCAAATACTCTCTGGCGACAGGCAACTGGGGAGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCGTCCACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGGCGCGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACTCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCCCTTATGGCGTGCATATCAGTCGGGTCTTACTCCGCGCCCGTTATCGAGTTTTTGGAGGAGTGGGGATTGGAGTCTTTGGAAGAAAACGCACACTCATCGACACCTTGCACAAAAGTTTTCGTGAACGGTGTCTGGATGGGTGTGCATCGCGATCCTGCCAATTTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGACGACATCAGCCCAGAAGTGTCAGTTGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACCGATGCTGGACGCGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGCGACGAGTACAAATGGGAACATCTGGTAAAGGGTGGAATCATTGAGTTACTGGATGCTGARGAAGAGGAAACAGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGTGTTGATCCTCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCACGCACACACATGGACACATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGTGCCAGCATCATTCCTTTCCCTGATCAT------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>AWW484\_Laccaria\_himalayensis TYPE\_CHINA\_JX504101\_JX504185\_KU685915\_

CCTGA-TGTGGCTGTTAGCTGGCTTTTTTGAAGCATGTGCTCGT-CCGTCATCTTTAATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGAAA-CTCGGATT----TTAG-AATCGCCGTGC---TGT---ACAAGTCGGCTTTCCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAATGTATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGTGGGCTTC-AT-----T---ATTGAGGTCGACTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCTGTGGAT-GTGAAGCAG--------------TT-CAGCTTCT-AACCGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-AACGGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCACGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTTGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATCAATTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTATCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGCATGCTTTTCCGAAAGTTGACCAAGGACGTTTATCGTTATCTACAAAAGgttgctgaccttcgttcaagtgcc-----atgagatgtgctca-cccctct---ttttcagTGTGTCGAGGCCCACAAGGAGTTCAACCTTGCCCTTGCAGTTAAGCATCAAACCATCACGAACGGCCTCAAATACTCTCTGGCGACAGGCAACTGGGGAGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCGTCCACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGGCGCGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACTCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCCCTTATGGCGTGCATATCAGTCGGGTCTTACTCCGCGCCCGTTATCGAGTTTTTGGAGGAGTGGGGATTGGAGTCTTTGGAAGAGAACGCACACTCATCGACACCTTGCACAAAAGTTTTCGTGAACGGTGTCTGGATGGGTGTGCATCGCGATCCTGCCAATTTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGACGACATCAGCCCAGAAGTGTCAGTTGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACCGATGCTGGACGCGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGCGACGAGTACAAATGGGAACATCTGGTAAAGGGTGGAATCATTGAGTTACTGGATGCAGAGGAAGAGGAAACAGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCKCGCCTACAGCAAAGTGGTGTTGATCCTCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCACGCACACACATGGACACATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGTGCCAGCATCATTCCTTTCCCTGATCAT------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>AWW485\_Laccaria\_acanthospora TYPE\_CHINA\_JX504102\_JX504186\_KU685916\_KU686073

TCTGA-TGTGGCTGTTAGCTGGC-TTTTTGAAGCATGTGCTCGC-CTGTCATCTTT-ATCTCT--CCA-CCTGTGCACCTTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TTGG-GATCGC------------------GTTAGCTTTCCTTGCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGAATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--TAAAAACTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCGGGCTTC-AC-----T---TATGAGGTCGGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCTGTGGAT-GTGAAGCAG-CTTTAT---GAAGTT-CAGCTTCT-AACAGTCC---ATTGACTTGGACAA----TTTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGCATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATATGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----ATTTTT---GCTTGGCTTATTTCCTGTTTGACGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTTGGATGTGTTATAGCCTTTGTTCGCATACATCGGTTGGGATTGAGGAACTCAGCACGCCGAAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGGAAAACTCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCATGGGGAGCATCGACGCCCGGATCTGACCTTTTGTGACGATTCCGCGGTAGAGCATGTTTTTCGCATGCTTTTCCGAAAGTTGACCAAGGACGTTTATCGTTATCTTCAAAAGgttgctgagcttcgctcaagttcc-----atgagatgtgctga-cccctct---tcttcagTGCGTCGAGACCCACAAGGAGTTCAACCTTGCCCTTGCAGTTAAGCATCAAACCATCACAAACGGCCTCAAATACTCTCTGGCTACAGGTAACTGGGGGGATCAGAAGAAGTCAATGTCTTCCAAGGCAGGAGTATCCCAGGTCTTGAACAGATACACATATGCCTCCACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGGCGCGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACTCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCCCTTATGGCGTGCATATCAGTCGGGTCTTACTCCGCGCCCGTTATYGAGTTTTTGGAGGAGTGGGGATTAGAGTCATTGGAAGAGAACGCGCACTCATCGACACCCTGCACAAAAGTTTTCGTGAACGGCGTCTGGATGGGTGTACATCGCGATCCCGCCAATTTGGTGAAGACGATAAAGAAGTTGAGAAGGAAAGACGACATCAGCCCAGAGGTGTCAGTTGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCCCTCTTCATCGTCGAGAACCAGCAGYTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGACGATGGCGACGAGTACAAATGGGAACATCTGGTAAAGGGTGGCATCATTGAGTTATTGGACGCTGAGGAAGAGGAAACAGTTATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGTGTTGATCCTCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGGTTGAAGGCCGGCACTCACGCACACACATGGACACATTGCGAAATTCATCCTAGCATGATACTTGGCATTTGTGCCAGCATTATCCCTTTCCCTGATCATCTGCGCCGTTCTCATCATTGCTGGTGGTACTGGTGAGTTCGAGGCTGGAWTCTCCAAGGATGGCCAGACCCGCGAGCACGCTCTCCTCGCTTTCACCCTCGGTGTGCGGCAACTCATCGTTGCCGTCAACAAGATGGACACCACTAAGGTAACAAACGTTTCAT-TCATAGTTAGGCTTTTTGCACATTCTCATCATCCCA-TGTAGTGGAGCGAGGACCGTTTCAACGAAATCATCAAGGAGACGTCAACCTTCATCAAGAAGGTTGGTTACAACCCAAAGGCCGTTGCCTTTGTCCCTATTTCCGGCTGGCACGGTGACAACATGTTGGAGGAGTCCCCTAAGTAAGCATTC--TCGTGTCGTCATGATCGCCCCGTCGCTCATTTTCCACTC-AGCATGCCTTGGTATAAGGGCTGGACCAGGGAGACCAAGGCTGGCGTCGTCAAGGGCAAGACCCTCCTCGATGCTATTGATGCCATTGAGCCCCCCGTCCGTCCTTCCGACAAACCCCTCCGTCTCCCCCTCCAGGATGTCTACAAAATTGGCGGTATCGGAACTGTGCCCGTCGGTCGTGTTGAGACTGGTATCATCAAGGCCGGAATGGTCGTCACTTTCGCTCCCTCTAACGTCACCACTGAAGTCAAGTCCGTCGAAATGCATCACGAACAGCTCGAGCAGGGTAACCCTGGTGACAATGTCGGTTTCAACGTCAAGAACGTGTCAGTGAAGGATATTCGTCGTGGCAACGTGGCCTCCGACTCCAAGAACGATCCCGCCAAGGAAGCGGCCTCTTTCAACGCACAGGTCATCGTCCTCAACCACCCTGGCCAAATTGGTGCTGGTTACGCCCCGGTTCTCGACTGTCACACCGCACATATCGCCTGCAAGTTCGCCGAGCTCATCGAGAAGATCGATCGTCGTACGGGTAAATCCATTGAAAACTCGCCCAAATTCGTTAAGTCGGGTGATGCCTGCATCGTCAAGCTCGTTCCTAGCAAGCCTATG

>AWW544\_Laccaria\_aff bicolor\_USA\_IL\_KM067820\_\_RPB2\_

TCTGA-TGTGACTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCATCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGAAA-CTTGGATT----TTAG-GATCGCCGTGC---TGT---ACAAGTCGGCTTTTCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTATAGAATGTYATC-AATGGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCYGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAAC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----C---ACTGAGGTCGGCTCTCCTTAAATGCATTAGYGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT---GAAGTT-CTGCTTCT-AACCGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGA--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------TTT-CGCATGCTTTTCCGAAAGTTGACCAAGGACGTTTATCGTTATCTACAAAAAgttgctgactttcactcaagtgcc-----atgagacgtattga-tctctct---tcttcagTGCGTCGAGACCCACAAGGAGTTCAACCTTGCCCTTGCAGTTAAGCATCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGGGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTGGGGCGCGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACCCATTGGGGTATGGTGTGCCCTGCGGAAACTCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCCCTTATGGCGTGCATATCAGTCGGGTCTTACTCCGCCCCCGTTATCGAGTTTTTGGAGGAATGGGGATTGGAATCATTGGAAGAGAACGCRCACTCATCAACTCCCTGCACAAAAGTTTTCGTGAACGGTGTATGGATGGGTGTGCATCGCGATCCTGCCAACTTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGACGACATTAGCCCTGAAGTGTCAGTTGTGCGAGACATCCGAGAGAAGGAATTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTTTTCATCGTCGAGAACCAACAGTTGGCACTTCAGAAGAAGCACGTCAAATGGCTTAGTAACGGCCTCAACGATGATGGCGACGAATACAAATGGGAACATTTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCTGAGGAAGAGGAAACGGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGCGTTGATCCTCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTAAAGGCTGGCACTCACGCACACACATGGACACATTGCGAAATTCACCCTAGCATGATTCTTGGCATTTGTGCCAGCATCATTCCTTTCCCCGATCAT------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>AWW545\_Laccaria\_aff ohiensis\_USA\_IL\_JX504106\_JX504190\_KU685917\_

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCGTCATCTTTAATCTCT--CCA-CCTGTGCACATTTTGTAGTCTTT-GGATACCTCTCGAGGCAA-CTCGGATA----TTAG-GATTGCCGTGC---TGT---ACAAGTCGGCTTTTCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACC-CCAAAGTATGTTTAAAGAATGTCATC-AATGGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCGGGCTTC-AT-----C---AATGAGGTCGGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTAAAGCAG-CTTTAT---AAAGTT-CAGCTTCT-AACCGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCGAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCACATATATCAGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAAAGCATGTTTTTCGCATGCTTTTCCGAAAGTTGACCAAGGACGTTTATCGTTATCTACAAAAGgttgctgaccttcgctcaagtgccatgagatgagatgtgctga-cccctct---tcttcagTGCGTCGAGACCCACAAGGAGTTCAACCTTGCCCTTGCAGTTAAGCATCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGAGATCAGAAAAAGTCAATGTCTTCCAAAGCAGGAGTATCTCAGGTCTTGAACAGATRCACATATGCATCCACTCTATCACATCTTCGTCGGTGTAACACTCCTCTAGGGCGCGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACTCATTGGGGTATGGTGTGTCCTGCCGAAACTCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCCCTTATGGCGTGCATATCAGTCGGGTCTTACTCTGCGCCCGTTATCGAGTTTTTGGAGGAGTGGGGATTGGAGTCATTGGAAGAGAACGCGCACTCATCAACACCTTGCACAAAAGTTTTCGTGAACGGTGTCTGGATGGGTGTGCATCGCGATCCTGCCAATTTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGACGATATTAGCCCAGAAGTGTCAGTTGTGAGAGACATCAGGGAGAAGGAATTGAGGTTGTATACCGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCATGTCAAATGG------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>AWW557\_Laccaria\_\_USA\_CA\_ITS\_28S\_RPB2\_EF1a

CCTGA-TGTGACTGTTAGCTGGC-TTTT-ATGGCAC-TGCTCGT-CCGTCATCTTT-ATCTCT--CC--CCTGTGAAA--TTGGTAGTC-TT-GGATACCT--------------------------G-GATCGCTGTGC---TGT---ACAAGTCGGCTTTCTTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATC-AATAGGAAA---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC-------TT-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCGGGCTTC-AT-----T---AATGAGGTCGGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACTGTCTATTTGGTGTGATAAATTATCTACGCCGTGGAT-GTGAAGCAGATTTTAT---GAAGTT-CAGCTTCT-AACCGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGGAGG--GCCGCCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGGGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCTAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGATGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG-TTTTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGCATGCTTTTCCGAAAGTTGAGCAAGGATGTTTATCGTTATCTACAAAAGgttgctgaccttcgctcaagtgcc-----atgagatgtgctga-cccctct---tcttcagTGCGTTGAGACCCACAAGGAGTTCAACCTGGCCCTTGCAGTTAAGCATCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGAGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCCACTCTATCACATCTTCGTCGGTGTAATACTCCTCTAGGGCGCGAAGGCAAGATCGCCAAACCCCGTCAGTTGCACAACACTCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCCCTTATGGCGTGCATATCAGTCGGGTCTTACTCCGCGCCCGTTATCGAGTTTTTGGAGGAGTGGGGATTGGAGTCATTGGAAGAGAACGCACATTCATCGACACCTTGCACAAAAGTTTTCGTGAACGGTGTCTGGATGGGTGTGCATCGCGATCCTGCCAATTTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGACGACATCAGCCCAGAAGTGTCAGTTGTGCGAGACATCAGRGAGAAGGAATTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGACGGCGACGAGTACAAATGGGAACATCTGGTAAAGGGTGGCATCATCGAGTTACTGGATGCTGAGGAAGAGGAAACGGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGTGTTGATCCTCATGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCACGCWCACACATGGACACATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGCGCCAGCATTATTCCTTTCCCTGATCATCTGCGCCATTCTCATCATTGCTGGTGGTACTGGTGAGTTCGAGGCTGGTATCTCCAAGGATGGCCAGACCCGCGAGCACGCTCTCCTCGCTTTCACCCTCGGTGTGCGGCAACTCATCGTTGCCGTCAACAAGATGGACACCACCAAGGTAAGAAACTTTTGAC-TTTTAGTTAGGCTTCTTTCACATTCTCATCATCTCA-TGTAGTGGAGTGAGGACCGTTTCAACGAAATCATCAAGGAGACGTCAACCTTCATCAAGAAGGTTGGTTACAACCCCAAGGCCGTTGCCTTTGTCCCTATTTCCGGCTGGCACGGTGACAACATGTTGGAGGAGTCCCCTAAGTGAGCATTC--TCGTATCGACATGGTCGCCCCGTCGCTCATGTTGTACTC-AGCATGCCTTGGTACAAGGGCTGGACCAAGGAGACCAAGGCTGGTGGCGTCAAGGGCAAGACCCTCCTCGATGCTATTGATGCCATTGAGCCCCCCGTCCGACCTTCCGACAAACCCCTCCGTCTCCCCCTCCAGGATGTCTACAAAATTGGCGGTATTGGAACTGTGCCCGTCGGTCGTGTTGAGACTGGTATCATCAAGGCCGGAATGGTCGTCACTTTCGCTCCCTCCAACGTCACCACTGAAGTCAAGTCCGTCGAAATGCATCACGAACAGCTCGAGCAGGGTAACCCTGGTGACAATGTCGGTTTCAACGTCAAGAACGTGTCAGTGAAGGATATTCGTCGTGGCAACGTGGCCTCCGACTCCAAGAACGATCCCGCCAAGGAAGCGGCCGCTTTCAACGCACAGGTCATCGTCCTCAACCACCCTGGTCAAATTGGTGCTGGTTACGCCCCAGTTCTCGACTGTCACACCGCCCACATCGCCTGCAAGTTCGCCGAGCTCATCGAGAAGATCGATCGTCGTACGGGTAAATCCATTGAAAACTCGCCTAAATTCGTCAAGTCGGGTGACGCCTGCATCGTCAAGCTCGTTCCCAGCAAGCCTATG

>AWW567\_Laccaria\_bicolor\_USA\_MI\_KM067824\_KU685765\_\_

CCTGA-TG-GACTGTTAGCTGGC-TTTTCAAAGCATGTGCTCGT-CTGTCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATCGCCGTGC---TGT---ACAAGTYGGCTTTTCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATC-AATGGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAAC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCGGGCTTC-AT-----T---AATGAGGTCGGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAARCAG-CTTTAT---GAAGTT-CTGCTTCT-AATCGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGTCCTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGGGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATATGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTTGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCACATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTATTTGGGTGAAAAACCCGAGTGCRTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCYGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGT-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>AWW572\_Laccaria\_sp\_USA\_MI\_KM067827\_KU685767\_KU685921\_

CCTGA-TGTGACTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCATCATCTTTAATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATCGCCG-----------------TTGGCTTTTCTTTCATTTTC-AAGACTATGTTCT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAAC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCGGGCTTC-AT---------CACGAAGTCGGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT---GAAGTT-CAGCTTCT-AACCGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGATTGCCAGGGC-TTTGTGATGTGCTCTCGAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCATATATATCAGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCRAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGTATGCTTTTCCGAAAGTTGACCAAGGACGTTTATCGTTATCTACAAAAGgttgctgaccttcgctcaagtgcc-----atgagatgtgctga-cctctct---tcttcagTGCGTCGAGACCCACAAGGAGTTCAACCTTGCCCTTGCAGTTAAGCATCAAACCATAACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGAGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCAACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGGCGCGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACTCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCCTGTGGTCTCGTCAAGAACCTCGCCCTTATGGCGTGCATATCAGTCGGGTCTTACTCCGCGCCCGTTATCGAGTTTTTAGAGGAGTGGGGATTGGAGTCATTGGAAGAGAACGCGCACTCATCAACACCTTGCACAAAAGTTTTCGTGAACGGTGTCTGGATGGGTGTACATCGCGATCCTGCCAATTTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGACGACATTAGCCCAGAAGTGTCAGTCGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGCGACGAGTACAAATGGGAACATCTGGTAAAGGGTGGCATCATTGAATTACTGGATGCTGAGGAAGAGGAAACAGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTGCAGCAAAGTGGTGTTGATCCTCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCACGCACACACATGGACACATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGTGCCAGCATTATTCCTTTCCCTGATCAC------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>AWW583\_Laccaria\_laccata\_USA\_OR\_KM067828\_KU685768\_\_

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCATCATCTTT-ATCT----CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATCGCTGTGC---TGT---ACAAGTCGGCTTTCCTTTCATTTCC-AAGACTATGTTTT---TT--A-TATACA-CCAAAGTATGTTTAAARAAKGTCATC-AATGGGA-------------TA--T-AAAATTATACAACTTTCAGCAATGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGAGTGG--ATAGGCTTGGA-TGT-GGGGG--TTGCGGGCTTC-AT-----C---AATGAGGTTGGCTCTCCTTAAAAGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT---AAAGTT-CAGCTTCT-AACTGTCC---ATTAATTTGGACAA-----TTTTGACAA--TTGGAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTTGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCTGATGTGTTATAGCCTTTGTTCGCATACATCGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACTCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCATGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGT-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>AWW590\_Laccaria\_amethysteo-occidentalis\_USA\_OR\_JX504112\_JX504195\_KU685923\_

CCTGA-TGTGACTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCGTCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCT--------------------------G-GATCGCTGTGC---TGT---ACAAGTCGGCTTTCTTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATC-AATAGGAAA---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC-------TT-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCGGGCTTC-AT-----T---AATGAGGTCGGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACTGTCTATTTGGTGTGATAAATTATCTACGCCGTGGAT-GTGAAGCAGATTTTAT---GAAGTT-CAGCTTCT-AACCGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGGGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCTAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGATGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG-TTTTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGCATGCTTTTCCGAAAGTTGAGCAAGGATGTTTATCGTTATCTACAAAAGgttgctgaccttcgctcaagtgcc-----atgagatgtgctga-cccctct---tcttcagTGCGTTGAGACCCACAAGGAGTTCAACCTGGCCCTTGCAGTTAAGCATCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGAGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCCACTCTRTCACATCTTCGTCGGTGTAATACTCCTCTAGGGCGCGAAGGCAAGATCGCCAAACCCCGTCAGTTGCACAACACTCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCCCTTATGGCGTGCATATCAGTCGGGTCTTACTCCGCGCCCGTTATCGAGTTTTTGGAGGAGTGGGGATTGGAGTCATTGGAAGAGAACGCACATTCATCGACACCTTGCACAAAAGTTTTCGTGAACGGTGTCTGGATGGGTGTGCATCGCGATCCWGCCAATTTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGACGACATCAGCCCAGAAGTGTCAGTTGTGCGGGAYATCAGRGAGAAGGAATTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGACGGCGACGAGTACAAATGGGAACATCTGGTAAAGGGTGGCATCATCGAGTTACTGGATGCTGAGGAAGAGGAAACGGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGTGTTGATCCTCATGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCACGCACACACATGGACACATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGCGCCAGCATTATTCCTTTCCCTGATCAT------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>AWW591\_Laccaria\_sp\_USA\_OR\_KM067830\_28S\_RPB2\_

CCTGA-TGTGACTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCATCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GCATACCTCTCGAGGAAA-CTCGGATT----TGAG-GATTGCCGTGC---TGT---ACAAGTCGGCTTTTCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTATAGAATGTCATC-AATGGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAAC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCGGGCTTC-AT-----C---ACTGAGGTCGGCTCTCCTTAAATGCATTAGTGGAACTTTTGTGGACCATCTA-TTGGTGTGAT-AATTATCTACGCCGTGGGT-GTGAAGCAG-TTTTAT---GAAGTT-CTGCTTCT-AACCGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATATGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC------TTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCACATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTATTTGGGTGAAAAACCCGAGTGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGCATGCTTTTCCGAAAGTTGACCAAGGACGTTTATCGTTATCTACAAAAGgttgctgactttcgctcaagtgcc-----atgagacgtgttga-cctctct---tcttcagTGCGTCGAGACCCACAAGGAGTTCAACCTTGCCCTTGCAGTTAAGCATCAAACCATTACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGGGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGACGCGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACCCATTGGGGTATGGTGTGCCCGGCGGAAACTCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCCCTTATGGCGTGCATATCAGTCGGGTCTTATTCCGCGCCCGTTATCGAGTTTTTGGAGGAATGGGGATTGGAGTCATTGGAAGAGAACGCACACTCATCAACGCCCTGCACCAAAGTTTTCGTGAAYGGTGTATGGATGGGTGTGCATCGCGATCCTGCCAACTTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGACGACATTAGCCCAGAAGTGTCAGTTGTGCGAGACATCCGGGAGAAGGAGTTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGCGACGAATACAAATGGGAACATTTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCTGAGGAAGAGGAAACGGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGCGTTGACCCTCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTAAAGGCTGGCACTCACGCACACACATGGACACATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGTGCCAGCATTATTCCTTTCCCCGATCAT------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>AWW595\_Laccaria\_sp\_USA\_AK\_JX504115\_JX504198\_\_

CCTGA-TGTGATTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CTGTCATATTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGAAA-CTCGGATT----TTAG-GATCGCTGTGC---TGT---ACAAGTCGGCTTTTCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTATAGAATGTCATC-AATGGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAAC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCGGGCTTC-AA-----T---AATGAGGTCGGCTCTCCTTAAATGCATTAGTGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT---GAAGTT-CTGCTTCT-AACCGTCC---ATTGACTTGGACAA----TTTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCGGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATATGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACCGGTGG-AAAAAGTYCAAAGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCACATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTATTTGGGTGAAAAACCCGAGTGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGT-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>BAP360\_Laccaria\_negrimarginata TYPE\_CHINA\_TIBET\_JX504120\_\_\_

CCTGA-TGTGGCTGTCAGCTGGC-TTCT----GCATGTGCTCGT-TCATCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGAC-TT-GGATA--------------------------ATGG---------------------------------CTCTGTCATTTAC-AAGACTATGTTAT----C--AATATAC--CCAAAGCATGTTTAAAGAATGTCATC-AATAGGAACT--TGGTTTCCTAT-TAGAAACTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGTTAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTT---------------TCCATTAATTTGK--TTTGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-ATTTGACT----ATGAGGTCAGCTCTCCTTAAATGCATTAGTGGAACTTTTGTTGACCATCTA-TTGGTGTGAT-ATCTATCTACACTGTGGAT-GTGAAGCAG------------TGTT-CAGCTTCT-AACCGTCTATTATTGACTTT-AC---------TTGACCA-TTTGA-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>Cripps1625\_Laccaria\_pseudomontana\_TYPE\_USA\_CO\_DQ149871\_\_\_

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCAAAGCATGTGCTCGT-CCGTCATCTTTAATTTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATCGCCGTGC---TGT---AAAAGTCAGCTTTCCTCTCATTTCC-AAGACTATGTTTT----C--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATC-AATGGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAAC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCGGGCTTC-AT-----C---AATGAGGTCGGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-TTGAAGCAG-CTTTAT---GAAGTT-CAGCCTCT-AACCGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGA-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>Cripps1771\_Laccaria\_pseudomontana\_USA\_CO\_DQ149870\_\_\_

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCAAAGCATGTGCTCGT-CCGTCATCTTTAATTTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATCGCCGTGC---TGT---AAAAGTCAGCTTTCCTCTCATTTCC-AAGACTATGTTTT----C--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATC-AATGGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCACCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCGGGCTTC-AT-----C---AATGAGGTCGGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-TTGAAGCAG-CTTTAT---GAAGTT-CAGCCTCT-AACCGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGA-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>F1061267\_Hydnangium\_vinaceoavellanea\_JAPAN\_JX504121\_\_\_

-------GTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGC-CCATCATCTTT-ATCTCT--CCA-CCTGTGCACCTTTTGTAGTC-TT-GAATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATTGCCGTGC-TTTATACACAAAGTCGGCTTTTCTTTCATTTTC-AAGACTATGTTTT---CT--A-TACACA-CCAAAGTATGTTTAAAGAACGTCATC-AATAGGAAC---TTGTTTCCTA--TAAAAACTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAACCTTTCCAGC--------T-TTTATTAGTTTGG--TCAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----T-------TAGTCTGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACACCGTGGAT-GTAAAGCAGTTTTTAT-AAAAAGTT-CAGCTCCT-AACTGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGA-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>F1098987\_Laccaria\_bicolor\_USA\_NY\_KM067813\_F1098987\_RPB2\_F1098987

-CTGA-TGTGACTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCATCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TTAGGATACCTCTCGAGGAAA-CTCGGATT----TGAG-GATCGCCGTGC---TGT---ACAAGTCGGCTTTTCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTATAGAATGTCATC-AATGGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAAC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCGGGCTTC-AT-----C---ACTGAGGTCGGCTCTCCTTAAATGCATTAGTGGAACTTTTGTGGACCATCTA-TTGGTGTGAT-AATTATCTACGCCGTGGGT-GTGAAGCAG-CTTTAT---GAAGTT-CTGCTTCT-AACCGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATATGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC------TTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCACATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTATTTGGGTGAAAAACCCGAGTGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGCATGCTTTTCCGAAAGTTGACCAAGGACGTTTATCGTTATCTACAAAAGGTTGCTGACTTTCGCTCAAGTGCC-----ATGAGACGTGTTGA-CCTCT-----TCTTCAGTGCGTCGAGACCCACAAGGAGTTTAACCTTGCCCTTGCAGTTAAGCATCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGGGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCCACCCTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGGCGCGAAGGCAAGATCGCCAAACCTC----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------TAAGAAAAGTTTCAC-TTATAGTTAGGCTTCTTYCACATGCTCATCACCTCA-TGCAGTGGAGCGAGGACCGTTTCAACGAAATTATCAAGGAGACGTCAAGCTTCATCAAGAAGGTTGGTTACAACCCCAAGGCCGTTGCCTTTGTTCCTATTTCCGGCTGGCACGGTGACAACATGTTGGAGGAGTCCCCTAAGTAAGTATTC--TCGTATCGTCATTATTGCGGGGTCGCTCATGTCACACTC-AGCATGCCTTGGTTCAAGGGCTGGACCAAGGAGACCAAGGCCGGTGTCGTCAAGGGCAAGACCCTCCTCGATGCTATTGATGCCATTGAGCCCCCCGTCCGACCTTCCGACAAGCCCCTCCGTCTTCCCCTCCAGGAYGTCTACAAAATTGGCGGTATCGGAACTGTGCCCGTCGGTCGTGTTGAGACTGGTATCATCAAGGCCGGAATGGTCGTCAATTTCGCTCCCTCCAACGTCACCACTGAAGTCAAGTCCGTCGAAATGCATCACGAACAGCTCGAGCAGGGTAACCCTGGTGACAATGTCGGTTTCAACGTCAAGAACGTGTCAGTGAAGGATATTCGTCGTGGCAACGTGGCCTCCGACTCCAAGAACGATCCCGCCAAGGAAGCGGCCTCTTTCAACGCACAGGTCATCGTCCTCAACCACCCTGGTCAAATTGGTGCTGGTTATGCCCCGGTTCTCGACTGTCACACCGCCCACATCGCCTGCAAGTTCGCCGAGCTCATCGAAAAGATCGATCGTCGTACGG--------------------------------------------------------------------------------

>F1121424\_Laccaria\_striatula\_CHINA\_JX504127\_JX504207\_KU686064\_

-CTGA-TGTGACTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCGTCATCTTTAATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TTCGGATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATCGCCGTGC---TGT---ACAAGTCGACTTTTCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCYATG--------T-TTTATTAGCATGG--TTAGGCTTGGA-TGT-GGGGG--TTGCGGGCTTC-AT-----C---AATGATGTCAGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AGTTATCTACGCCGTGGAT-GTGATGCAG-CTTTAT---GAAGTT-CAGCTTCT-AACCGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCGAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTAG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCCTTGTTCACATATATCAGTTGGAATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCATAATGAAAGTG-AAAGTTGAGATCCCTGTCATGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGTATGCTTTTCCGAAAGTTGACCAAGGACGTTTATCGTTATCTACAAAAGGTTGCTGACCTTCGCTCAAGTGCC-----ATGAGATGTGCTGA-CCTCTCT---TCTTCAGTGCGTCGAGACCCACAAGGAGTTCAACCTTGCCCTTGCGGTTAAGCATCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGAGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGGCGCGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACCMATTGGGG----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>F1123822\_Laccaria\_amethystea\_USA\_WI\_KU685760\_KU685911\_KU686071\_

-CTGA-TGTGACTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCGTCATCTTT-ATCCCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATCGCTCTGC---TGT---ACAAGTTGGCTTTCCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTTATC-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------TTTTTATTAGCTTGG--TTTGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----T---AATGAGGTCGGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT-------------------------------------------A--------------------AAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGGGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC-----TTTTT---GCTTGGCTTACTTTCTGGTTAATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGCATGCTTTTCCGGAAGTTAACCAAGGACGTTTATCGYTATCTACAAAAGGTTGCTGACCTTCGTTTAAGTGCC-----ATGAGATGTGCTGACCCCTTTT---TTTTCAGTGCGTCGAGACCCACAAGGAGTTCAACCTTGCCCTTGCAGTTAAGCATCAAACCATCACAAATGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGTGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCCACCTTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGGCGCGAGGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACTMATTGGGG----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>GMM7020\_Laccaria\_proxima\_RUSSIA\_KU685652\_KU685795\_KU685938\_

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-YCATCATCTTT-ATCT----CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATCGCTGTGC---TGT---ACAAGTCGGCTTTCCTTTCATTTCC-AAGACTATGTTTT--TTT--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATC-AATGGGA-------------TA--T-AAAATTATACAACTTTCAGCAATGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--ATAGGCTTGGA-TGT-GGGGG--TTGCGGGCTTC-AT-----C---AAYGAGGTTGGCTCTCCTTAAAAGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAA-CTTTAT---AAAGTT-CAGCTTCT-AACTGTCC---ATTAACTTGGACAA-----TTTT-----------AAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTTGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCTGATGTGTTATAGCCTTTGTTCGCATACATCGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACTCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCATGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGCATGCTTTTCCGAAAGTTGACCAAGGACGTTTATCGTTATCTACAAAAGGTTGCTGACCTTCGTTCAAGCGCC-----ATGAGATCTGCTGA-CCCTTCT---TTTTCAGTGCGTCGAGGCCCACAAGGAGTTCAACCTTGCCCTTGCAGTTAAGCATCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGAGATCAGAAAAAGTCAATGTCTTCCAAAGCAGGAGTATCTCAGGTTTTGAACAGATACACATATGCATCCACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGGCGCGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACTCATTGGGGTATGGTGTGTCCTGCGGAAACCCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCCCTTATGGCATGCATATCAGTCGGGTCTTACTCCGCGCCCGTTATCGAGTTTTTGGAGGAGTGGGGATTGGAGTCTTTGGAAGAGAACGCACACTCATCGACACCTTGCACAAAAGTTTTCGTGAATGGTGTCTGGATGGGTGTGCATCGCGATCCTGCCAATTTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGACGACATCAGCCCAGAAGTGTCAGTTGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGCGACGAGTACAAATGGGAACATCTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCTGAGGAAGAGGAAACAGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGTGTTGATCCTCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCACGCACACACGTGGACACATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGTGCAAGCATTATTCCTTTCCCTGATCAT------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>GMM7167\_Laccaria\_amethystina\_\_KU685655\_KU685798\_\_KU686083

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGTCCCGTCATCTTT-ATCTCT--CCA-CCTGTGAACATTTTGTAGTC-TT-GGATACCTCTCGAGTCAA-CTCGGATT--T-TAAG-GATTGCCGTGC---TTGT--ACAAGTTGGCTTTCCTTTCACTTCC-AAGACTATGTTTT-------A-TACACA-CCCAAGTATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--TTAGGATTGGA-TGT-GGGAG--TTGCAGGCTTC-AT-----T---AATGAGGTCAGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-ATCTAT---GAAGTT-CAGCTTCT-AACCGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCGGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGGGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGcGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCATTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTCAATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTTGGATGTGTTATAGCCTTTGTTCACATACATTGGTCGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCATGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGT-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------AGCACGCTCTCCTCGCTTTCACCCTCGGTGTGCGGCAACTCATCGTTGCCGTCAACAAGATGGACACCACCAAGGTAAGAAACTTTTGAC-TTATAGCCAGGCTTGTTTCACATCCTCATCATCTCA-TGTAGTGGAGCGAGGACCGTTTCAACGAAATCATCAAGGAGACGTCAACCTTCATCAAGAAGGTTGGTTACAACCCCAAGGCCGTTGCCTTTGTCCCTATTTCCGGCTGGCACGGTGACAACATGTTGGAGGAGTCCGCTAAGTGAGCATTC--TCGCATCGTCATGGTCGCCCCGCCGCTCATGTTGTACTC-AGCATGCCTTGGTACAAGGGCTGGACCAGGGAGACCAAGGCTGGTGCCGTCAAGGGCAAGACCCTACTCGATGCTATTGATGCCATTGAGCCCCCCGTTCGACCTTCCGACAAACCCCTCCGTCTCCCCCTCCAGGATGTCTACAAAATTGGTGGTATTGGAACTGTGCCCGTCGGTCGTGTTGAGACTGGTATCATCAAGTCCGGAATGGTCGTCACTTTCGCTCCCTCCAACGTCACCACTGAAGTCAAGTCCGTCGAAATGCATCACGAACAGCTCGAGCAGGGTAACCCTGGCGACAATGTCGGTTTCAACGTCAAGAACGTGTCAGTGAAGGATATTCGTCGTGgCAACGTGGCCTCCGACTCCAAGAACGATCCTGCCAAGGAAGCGGCCTCTTTCAACGCACAGGTCATCGTCCTCAACCACCCTGGTCAAATTGGTGCTGGTTACGCCCCAGTTCTCGACTGTCACACCGCCCACATCGCCTGCAAGTTCGCCGAGCTTATCGAGAAGATCGATCGTCGTACTTTTAAATCCATTGAAAACTCACCTAAATTTGTCAAGTCGGGTGACGCCTGCATCGTCAAGCTCGTTCCCAGCAAGCCTATG

>GMM7584\_Laccaria\_proxima\_RUSSIA\_KU685717\_KU685858\_KU685999\_KU686120

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCGTCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATAACTCTCGAGGCAA-CTCGGATT----TTAG-AATCGCCGTGC---TGT---ACAAGTCGGCTTTCCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTCAAAGAATGTCATC-AATGGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAAC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCGGGCTTC-AT-----T---AACGAGGTCGGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT---GAAGTT-CAGCTTCT-AACCGTCC---ATTTATTTGGACAA----TTTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGGGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATCAGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGCGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGCATGCTTTTCCGAAAGTTGACCAAAGACGTTTATCGTTATCTACAAAAGgttgctgatcttcgctcaagtgcc-----atgagatgtgctga-cctctct---ttttcagTGCGTCGAGACCCACAAGGAGTTCAACCTTGCCCTTGCAGTTAAGCATCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGAGATCAAAAAAAGTCAATGTCTTCYAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGGCGCGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACTCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCCCTTATGGCGTGCATATCAGTCGGGTCTTACTCCGCGCCCGTTATCGARTTTTTGGAGGAATGGGGATTGGAGTCGTTGGAAGAGAACGCGCACTCATCAACACCTTGCACAAAAGTTTTCGTGAACGGTGTCTGGATGGGTGTGCATCGCGATCCTGCCAATTTGGTGAAGACGATAAAGAAATTGAGRAGGAAAGATGACATTAGCCCAGAAGTGTCAGTTGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGTGACGAATACAAATGGGAACATCTGGTAAAGGGTGGCATCATTGAGCTACTGGATGCTGAGGAAGAGGAAACAGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGCGGTGTCGATCCTCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCACGCACACACATGGACACATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGTGCCAGCATTATTCCTTTCCCCGATCATCTGCGCCCTTCTCATCATTGCTGGTGGTACTGGTGAGTTCGAGGCTGGTATCTCCAAGGATGGCCAGACCCGCGAGCACGCTCTCCTCGCTTTCACCCTCGGTGTGCGGCAACTCATCGTTGCCGTCAACAAGATGGACACCACCAAGGTAAGAAACCTTTGAC-TTATAGTTAGGCTTCTTGCGCATTCTCATCGTCTCA-TGTAGTGGAGCGAGGACCGTTTCAACGAAATCATCAAGGAGACGTCAACTTTCATCAAGAAGGTTGGTTACAACCCCAAGGCTGTTGCCTTTGTCCCTATTTCCGGCTGGCACGGTGACAACATGTTGGAGGAGTCTCCCAAGTAAGCATTC--TCGTATTGTCATGATCGCCCCGTCGTTCATGTTGCACTC-AGCATGCCTTGGTACAAGGGCTGGACCAAGGAGACCAAGGCYGGTGTCGTCAAGGGCRAGATCCTCATCGATRCTATCGTTGCCATTGAGCCCCCCGCCCGACCCTCCSTCCACCYTCTCGGTGTCCCCCAACATGATGTCTACAAAATTGGCGGCATCGGAACTGTGCCCGTCGGTCGTGTTGAGACTGGTATCATCAAGGCCGGAATGGTCGTCACCTTCACCACTTCCAACGTCACCATGGAAATGCAGTCCGTGGAAATGCACCACGAGCAGCTTGAGCAGGGTAACCCTGGTGACAATGTCGGTTTCAACGTCAAGAACGTGTCAGTGAAGGATATTCGTCGTGGCAACGTGGCCTATGCCTCCAAGAACGATCCCGCCAAGGAAGCCGCCTCTTTCAACGCACAGGTCATCGTCCTCAACCACCCCGGTCAAATTGGTGCTGGTTACGCCCCGGTTCTCGACTGTCACACCGCCCACATCGCCTGCAAGTTCGCCGAGCTCATTGAGAAGATCGATCGTCGTACGGGTAAATCCATTGAAAACTCGCCTAAATTCGTCAAGTCTGGTGACGCCTGCATCGTCAAGCTCGTTCCCAGCAAGCCTATG

>GMM7586\_Laccaria\_striatula\_RUSSIA\_KM067835\_KU685859\_KU686000\_

CCTGA-TGTGACTGTTAGCTGGC-TTTTCGAAGAA-GTGCTCGT-CCGTCATCTTTAATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATCGCCGTGC---TGTTGTACAAGTCGACTTTTCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCATG--------T-TTTATTAGCATGG--TTAGGCTTGGA-TGT-GGGGG--TTGCGGGCTTC-AT-----C---AATGATGTCGGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AGTTATCTACGCCGTGGAT-GTGATGCAG-CTTTAT---GAAGTT-CAGCTTCT-AACCGTCC---ATTGACTTGGACAA-----TTTTGACAA--TTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCGAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTAG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCCTTGTTCACATATATCAGTTGGAATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCATAATGAAAGTG-AAAGTTGAGATCCCTGTCATGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGTATGCTTTTCCGAAAGTTGACCAAGGACGTTTATCGTTATTTACAAAAGgttgctgaccttcgctcaagtgcc-----atgagatgtgctga-cctctct---tcttcagTGCGTCGAGACCCACAAGGAGTTCAACCTTGCCCTTGCGGTTAAGCATCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGAGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGGCGCGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACCCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCCCTTATGGCGTGCATATCAGTCGGGTCTTACTCCGCGCCCGTTATCGAGTTTTTGGAGGAGTGGGGATTGGAGTCATTGGAAGAGAACGCGCACTCATCAACACCTTGCACAAAAGTTTTCGTGAACGGTGTCTGGATGGGTGTGCATCGCGATCCTGCCAATTTGGTGAAGACGATAAAGAAATTGAGAAGGAAGGACGACATTAGCCCAGAAGTGTCAGTCGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGYGACGAGTACAAATGGGAACATCTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCTGAGGAAGAGGAAACAGTGATGATATCCATGACGCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGTGTTGATCCTCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCACGCACACACATGGACACATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGTGCCAGCATTATTCCTTTCCCTGATCAT------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>GMM7596tibet\_Laccaria\_salmonicola\_CHINA\_TIBET\_JX504143\_JX504218\_KU686045\_KU686151

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCGTCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC--------------------------------------------------------------------------------TTTCC-AAGACTATGTTTT----T--A-TATACA-CCAATGTATGTTTAAAGAATGTCATC-AATAGAAAC---TTGTTTTCTA--TAAAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAAC--------T-TTTATTAGCTTGG--TTTGGCTTGGA-TGT-GGGGG--TTGCGGGCTTCTAT-----T---AATGAAGTCGGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTATGCCGTGGAT-GTAAAGCAG-CTTTAT---GAAGTT-CAGCTTCT-AATCGTCC---ATTGACTTGGACAATTTTTTTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATATGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTCAATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCATATGCATTGGTTGGGATTGAGGAACTCAGCACGCCGAAAGGCCGGG--TTTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGTGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGCATGCTTTTCCGAAAGTTGACCAAGGACGTTTATCGTTATTTACAAAAGGTTTCTGACCTTCGCTGAAGTGCC-----ATGAGATGTGCTGA-CCCCTCT---TCTTTAGTGCGTTGAGACCCACAAGGAGTTCAACCTTGCCCTTGCAGTTAAGCATCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAATTGGGGAGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCGTCCACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGGCGCGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACTCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCCCTTATGGCGTGCATATCAGTCGGGTCTTACTCTGCGCCCGTTATCGAGTTTTTGGAGGAGTGGGGGTTGGAGTCATTGGAAGAGAACGCGCACTCATCAACACCTTGCACAAAAGTTTTCGTGAACGGTGTCTGGATGGGTGTGCATCGCGATCCTGCCAATTTGGTGAAAACGATAAAGAAATTGAGAAGGAAAGACGACATCAGTCCAGAAGTGTCAGTCGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACAGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTTGAGAACCAACAGCTAGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGCGACGAGTACAAATGGGAACACCTGGTAAAAGGTGGCATCATTGAGTTACTGGATGCTGAGGAAGAGGAAACGGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGTGTTGACCCTCATGCGAACGACGGCGAGTTTGATCCAGCAGCTCGGTTGAAGGCGGGCACTCACGCACACACGTGGACACATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGTGCCAGCATTATTCCTTTCCCTGATCAT----------------------------------------------------------------------CGCGAGCACGCTCTCCTCGCTTTCACCCTTGGTGTACGGCAACTCATCGTTGCCGTCAACAAGATGGACACCACTAAGGTAAGAAACGTTTCAC-TTATAGTTAGGCTTCTTGCACATTCTCATCATCTCA-TGTAGTGGAGCGAGGACCGTTTCAACGAAATCATCAAGGAGACGTCAACCTTCATCAAGAAGGTTGGTTACAACCCCAAGGCCGTTGCCTTTGTCCCTATTTCCGGCTGGCACGGTGACAACATGTTGGAGGAGTCCGCTAAGTAAGCATTC--TCGTATCGTCATGATCGCCCCGTCGCTCATGTTGCACTC-AGCATGTCTTGGTACAAGGGCTGGACCAAGGAGACCAAGGCTGGTGTCGTCAAGGGCAAGACCCTCCTCGATGCTATTGATGCCATTGAGCCCCCCGTCCGACCTTCCGACAAACCCCTCCGTCTCCCCCTCCAGGATGTCTACAAAATTGGCGGTATCGGAACTGTGCCCGTCGGTCGTGTTGAGACTGGTATCATCAAGGCCGGAATGGTCGTCAATTTTGCTCCCTCCAACGTCACCACTGAAGTCAAGTCCGTCGAAATGCATCACGAACAGCTTGAGCAGGGTAACCCTGGTGACAATGTCGGTTTCAACGTCAAGAACGTGTCGGTGAAGGATATTCGTCGTGGCAACGTGGCCTCCGACTCCAAGAACGATCCYGCCAAGGAAGCGGCCTCTTTCAACGCACAGGTCATCGTCCTTAAYCACCCTGGTCAAATTGGTGCTGGTTACGCCCCGGTTCTCGATTGTCACACCGCCCACATCGCCTGCAAGTTCGCCGAGCTCATCGAGAAGATCGATCGTCGTACGGGTAAATCTATTGAAAACTCGCCCAAATTCGTCAAGTCGGGTGATGCCTGCATYGTCAAGCTCGTTCCCAGCAAGCCTATG

>GMM7602Tibet\_Laccaria\_salmonicola\_CHINA\_TIBET\_GMM7602\_28S\_\_

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCGTCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC--------------------------------------------------------------------------------TTTCC-AAGACTATGTTTT----T--A-TATACC-CCAATGTATGTTTAAAGAATGTCATC-AATAGAAAC---TTGTTTTCTA--TAAAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTYTGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAAC--------T-TTTATTAGCTTGG--TTTGGCTTGGA-TGT-GGGGG--TTGCGGGCTTCTAT-----T---AATGAAGTCGGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTATGCCGTGGAT-GTAAAGCAG-CTTTAT---GAAGTT-CAGCTTCT-AATCGTCC---ATTGACTTGGACAT-TTTTTTTTGACAA--TTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATATGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTCAATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCATATGCATTGGTTGGGATTGAGGAACTCAGCACGCCGAAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGT-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>PRL7587\_Laccaria\_trullisata\_\_KM067882\_JX504247\_KU686047\_KU686153

CCTGA-TGTGACTGTTAGCTGGC-TTTTTGAAGCATGTGCTCGT-CCGTCATTTTT-ATCTCT--CCACCCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TTGGAGATCGCTGTGC---TGT---ACAAGTCAGCTTTCTTTTCATTTCC-AAGACTATGTTTTAATAT--A-TACACA-CCAAAGTATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--TAAAATTTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------TTTTTATTGGCTTGG--TTAGGCTTGGA-TGT-GGGGG-TTTGTGGGCTTC-AT-----TTA-ATTGAGGTCGACTCTCCTTAAATGCATTAGTGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCATAATTTAT---GAAGTT-CAGCTTCT-AACCGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGGGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGCTTT-GTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTCGATGGGGTCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGTGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATCGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGTATGCTTTTCCGAAAGTTGAGCAAGGACGTTTATCGTTATCTACAAAAGgttgttgacctttg-tcaagtgcc-----atgagatgtgctga-tccctct---tcttcagTGCGTCGAGACCCACAAGGAGTTCAACCTTGCCCTTGCAGTTAAGCATCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGAGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGGCGCGAAGGCAAAATCGCCAAACCTCGTCAGTTGCACAACACTCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCTTGTGGTCTTGTCAAGAACCTTGCCCTTATGGCGTGCATATCAGTCGGGTCTTACTCCGCGCCCGTTATCGAGTTTTTGGAGGAGTGGGGATTGGAGTCATTGGAAGAGAACGCACACTCATCGACACCTTGCACAAAAGTTTTCGTGAACGGTGTTTGGATGGGTGTGCATCGCGATCCTGCCAATTTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGATGACATCAGCCCAGAAGTGTCAGTTGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGCGACGAGTACAAATGGGAACATCTGGTAAAGGGTGGCATCATCGAGCTACTGGATGCTGAGGAAGAGGAAACGGTGATGATATCTATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGTGTTGATCCTCATGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCATGCACACACATGGACACATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGCGCCAGCATTATTCCTTTCCCTGATCATTTGCGCCATTCTCATCATTGCTGCTGGTACTGGTGAGTTCGAGGCTGGTATCTCCAAGGATGGCCAGACCCGCGAGCACGCTCTCCTGGCTTTCACCCTCGGTGTGCGGCAACTCATCGTTGCCGTCAACAAGATGGACACCACTAAGGTAAGAAACGTTTCAC-TTATAGTTAGGCTTCTTGCACATTCTCATCATCTCA-TGTAGTGGAGCGAGGACCGTTTCAACGAAATCATCAAGGAGACGTCAACCTTCATCAAGAAGGTTGGTTACAACCCCAAGGCCGTTGCCTTTGTCCCTATTTCCGGCTGGCACGGTGACAACATGTTGGAGGAGTCCCCTAAGTAAGCATTC--TCGTATCGTCATGATCGCCCCGTCGCTCATGTTGCACTCAAGCATGTCTTGGTACAAGGGCTGGACCAAGGAGACCAAGGCTGGTGTCGTCAAGGGCAAGACCCTCCTCGATGCTATTGATGCCATTGAGCCCCCCGTCCGACCTTCCGACAAACCCCTCCGTCTYCCTCTTCAGGATGTCTACAAAATTGGCGGTATCGGAACTGTGCCCGTCGGTCGTGTTGAGACTGGCATCATCAAGGCCGGAATGGTCGTCAATTTCGCTCCCTCCAACGTCACGACTGAAGTCAAGTCCGTCGAAATGCATCACGAACAGCTCGAGCAGGGTAACCCTGGTGACAATGTCGGTTTCAACGTCAAGAACGTGTCGGTGAAGGATATTCGTCGTGGCAACGTGGCCTCCGACTCCAAGAACGATCCCGCCAAGGAAGCGGCCTCTTTCAACGCACAGGTCATCGTCCTCAACCACCCTGGTCAAATTGGTGCTGGTTACGCTCCGGTTCTCGACTGTCACACTGCCCACATCGCCTGCAAGTTCGCCGAGCTCATTGAGAAGATCGATCGTCGTACGGGTAAATCCATTGAAAACTCGCCTAAATTCGTCAAGTCGGGTGACGCCTGCATCGTCAAGCTCGTTCCCAGCAAGCCTATG

>WCG2072\_Laccaria\_trullisata\_\_KU685749\_\_KU686044\_KU686150

CCTGA-TGTGACTGTTAGCTGGC-TTTTTGAAGCATGTGCTCGT-CCGTCATTTTT-ATCTCT--CCACCCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TTGGAGATCGCTGTGC---TGT---ACAAGTCAGCTTTCTTTTCATTTCC-AAGACTATGTTTTAATAT--A-TACACA-CCAAAGTATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--TAAAATTTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------TTTTTATTGGCTTGG--TTAGGCTTGGA-TGT-GGGGG-TTTGTGGGCTTC-AT-----TTA-ATTGAGGTCGACTCTCCTTAAATGCATTAGTGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCATAATATAT---GAAGTT-CAGCTTCT-AACCGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGA--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------TTTCCGTATGCTTTTCCGAAAGTTGAGCAAGGACGTTTATCGTTATCTACAAAAGgttgttgacctttg-tcaagtgcc-----atgagatgtgctga-tccctct---tcttcagTGCGTCGAGACCCACAAGGAGTTCAACCTTGCCCTTGCAGTTAAGCATCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGAGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGGCGCGAAGGCAAAATCGCCAAACCTCGTCAGTTGCACAACACTCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCTTGTGGTCTTGTCAAGAACCTTGCCCTTATGGCGTGCATATCAGTCGGGTCTTACTCCGCGCCCGTTATCGAGTTTTTGGAGGAGTGGGGATTGGAGTCATTGGAAGAGAACGCACACTCATCGACACCTTGCACAAAAGTTTTCGTGAACGGTGTTTGGATGGGTGTGCATCGCGATCCTGCCAATTTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGATGACATCAGCCCAGAAGTGTCAGTTGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGCGACGAGTACAAATGGGAACATCTGGTAAAGGGTGGCATCATCGAGCTACTGGATGCTGAGGAAGAGGAAACGGTGATGATATCTATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGTGTTGATCCTCATGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCATGCACACACATGGACACATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGCGCCAGCATTATTCCTTTCCCTGATCATCTGCGCCATTCTCATCATTGCTGGTGGTACTGGTGAGTTCGAGGCTGGTATCTCCAAGGATGGCCAGACCCGCGAGCACGCTCTCCTCGCTTTCACCCTCGGTGTACGGCAACTCATCGTTGCCGTCAACAAGATGGACACCACCAAGGTAAGAAAC-TTTTAC-TTATAGTTAGGCTTCTTTCACATCCTCATCATCTCA-TGTAGTGGAGCGAGGACCGTTTCAACGAAATCGTCAAGGAGACGTCAACCTTCATCAAGAAGGTTGGTTACAACCCCAAGGCCGTTGCCTTTGTCCCTATTTCCGGCTGGCACGGTGACAACATGTTGGAGGAGTCCGCTAAGTGAGTATTC--TCGCATCGTCGTGGTCGCCTCGTCGCTCATGTTGTACTC-AGCATGCCTTGGTACAAGGGCTGGACTAAGGAGACCAAGGCTGGTGTCGTCAAGGGCAAGACCCTCCTCGATGCTATTGATGCCATTGAGCCCCCCGTTCGACCTTCCGACAAACCTCTCCGTCTCCCCCTCCAGGATGTCTACAAAATTGGTGGTATTGGGACTGTGCCCGTCGGTCGTGTTGAGACTGGTATCATCAAGGCCGGAATGGTCGTCACTTTCGCTCCCTCCAACGTCACCACCGAAGTCAAGTCCGTCGAAATGCATCACGAACAGCTCGAGCAGGGTAACCCTGGTGACAATGTCGGTTTCAACGTCAAAAACGTGTCAGTGAAGGATATTCGTCGTGGCAACGTGGCCTCCGATTCCAAGAACGATCCAGCCAAGGAAGCGGCCTCTTTCAACGCACAGGTCATCGTCCTCAACCACCCTGGTCAAATTGGTGCTGGTTACGCCCCAGTGCTCGACTGTCACACCGCCCACATCGCCTGCAAGTTCGCCGAGCTCATCGAGAAGATCGATCGTCGTACGGGTAAATCCATTGAAAACTCACCTAAATTCGTCAAGTCGGGTGACGCCTGCATTGTCAAGCTCATTCCCAGCAAGCCTATG

>SB2151\_Laccaria\_laccata\_PORTUGAL\_KM067888\_28S\_RPB2\_EF1a

CCTGA-TGTGGCTGTTAGCTGGCTTTTTTGAAGCATGTGCTCGT-CCGTCATTTTT-ATCT----CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATTGCCGTGC---TGT---TCAAGTCGGCTTTCCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGCATGTTTATAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTGGCTTGG--TTAGGCTTGGATTGT-GGGGG--TTGCGGGCTTC-AT-----T---AATGAGGTCGGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT---GAAGTT-CAGCTTCT-AATCGTTC---ATTGACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGAAATGGGGCATCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC-TTTTTTTTT---GCTTGGCTTACTTTCTGGTCGACGGG-TCAGCATCAATTTTGACCGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATCGGTTGGGATTGAGGAACTCAGCACGCCGAAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCATGGGGAGCATCGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGCATGCTTTTCCGAAAGTTGACCAAGGACGTTTATCGTTATCTACAAAAGgttgctgaccttcgctcaagtgcc-----atgagatgtgctga-cccctct---tcttcagTGCGTCGAGACCCACAAGGAGTTCAACCTTGCCCTTGCAGTTAAGCATCAAACCATCACAAACGGCCTCAAATACTCTCTAGCGACAGGTAACTGGGGAGATCAGAAAAAATCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCTACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGGCGCGAAGGCAAGATAGCCAAACCCCGTCAGTTGCACAACACTCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCCCTTATGGCGTGCATATCAGTGGGGTCTTACTCCGCGCCCGTTATCGAGTTTTTAGAGGAGTGGGGATTGGAGTCATTGGAAGAGAACGCACACTCATCGACACCTTGCACAAAAGTTTTCGTGAACGGTGTCTGGATGGGTGTGCATCGCGATCCTGCCAACTTGGTGAAAACGATAAAGAAGCTGAGAAGGAAAGACGACATCAGCCCAGAAGTGTCAGTTGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACTGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGCGACGAGTACAAATGGGAACATCTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCTGAGGAAGAGGAAACKGTGATGATCTCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGTGTTGATCCTCACGCGAACGATGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCACGCACACACATGGACACATTGTGAAATTCATCCTAGCATGATTCTCGGCATTTGCGCCAGCATTATTCCTTTCCCTGATCATCTGCGCCATTCTCATCATTGCTGGTGGTACTGGTGAGTTCGAGGCTGGTATCTCCAAGGATGGCCAGACCCGCGAGCACGCTCTCCTCGCTTTCACCCTCGGTGTGCGGCAACTCATCGTTGCCGTCAACAAGATGGACACGACTAAGGTAAGAAACATTTCAA-TTATAGTTAGGCTTCTTGCACATTCTCATCATCYCA-TGTAGTGGAGCGAGGACCGTTTCAACGAAATCATCAAGGAGACGTCAACCTTCATCAAGAAGGTTGGTTACAACCCCAAGGCCGTTGCATTTGTCCCTATTTCCGGTTGGCACGGTGACAACATGTTGGAGGAGTCCCCTAAGTAAGCATTC--TCGTGTCGTCATGATCGCCCCGTCGCTCAYGTCGCACTC-AGCATGCCTTGGTACAAGGGCTGGACCAAGGAGACCAAGGCTGGTGTCGTCAAGGGCAAGACCCTCCTCGATGCTATTGATGCCATTGAGCCCCCCGTCCGACCTTCCGATAAACCCCTCCGTCTCCCCCTCCAGGATGTCTACAAAATTGGCGGTATCGGAACTGTGCCCGTCGGTCGTGTTGAGACTGGTATCATCAAGGCCGGAATGGTCGTCACTTTCGCTCCCTCTAACGTCACCACTGAAGTCAAGTCCGTCGAAATGCATCACGAACAGCTCGAGCAGGGTAACCCAGGTGACAATGTCGGTTTCAACGTCAAGAACGTGTCAGTGAAGGATATTCGTCGTGGCAACGTGGCCTCCGACTCCAAGAATGATCCCGCCAAGGAAGCGGCCTCTTTCAAYGCACAGGTCATCGTCCTCAACCACCCTGGTCAAATTGGTGCTGGTTACGCCCCGGTTCTCGACTGCCACACCGCCCACATCGCCTGCAAGTTCGCCGAGCTCATCGAGAAGATCGATCGTCGTACGGGTAAATCCATTGAAAACTCGCCKAAATTCGTCAAGTCGGGTGACGCCTGCATCGTCAAGCTCGTTCCCAGCAAGCCTATG

>GMM7038\_Laccaria\_proxima\_RUSSIA\_GMM7038\_GMM7038\_RPB2\_GMM7038

CCTGA-TGTGGCTGTTAGCTGGCTTTTTTGAAGCATGTGCTCGT-CCGTCATTTTT-ATCT----CCA-CCTGTGCACATTTTGTAGTC-TT-TGATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATTGCCGTGC---TGT---TCAAGTCGGCTTTCCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGCATGTTTATAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTGGCTTGG--TTAGGCTTGGATTGT-GGGGG--TTGCGGGCTTC-AT-----T---AATGAGGTCGGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT---GAAGTT-CAGCTTCT-AATCGTTC---ATTGACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGAAATGGGGCATCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTCGACGGG-TCAGCATCAATTTTGACCGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATCGGTTGGGATTGAGGAACTCAGCATGCCGAAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCATGGGGAGCATCGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGCATGCTTTTCCGAAAGTTGACCAAGGACGTTTATCGTTATCTACAAAAGGTTGCTGACCTTCGCTCAAGTGCC-----ATGAGATGTGCTGA-CCCCTCT---TCTTCAGTGCGTCGAGACCCACAAGGAGTTCAACCTTGCCCTTGCAGTTAAGCATCAAACCATCACAAACGGCCTCAAATACTCTCTAGCGACAGGTAACTGGGGAGACCAGAAAAAATCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCTACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGGCGCGAAGGCAAGATAGCCAAACCCCGTCAGTTGCACAACACTCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCCCTTATGGCGTGCATATCAGTGGGGTCTTACTCCGCGCCCGTTATCGAGTTTTTAGAGGAGTGGGGATTGGAGTCATTGGAAGAGAACGCACACTCATCGACACCTTGCACAAAAGTTTTCGTGAACGGTGTCTGGATGGGTGTGCATCGCGATCCTGCCAACTTGGTGAAAACGATAAAGAAGCTGAGAAGGAAAGACGACATCAGCCCAGAAGTGTCAGTTGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACTGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGCAACGGCCTCAACGATGATGGCGACGAGTACAAATGGGAACATCTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCTGAGGAAGAGGAAACGGTGATGATCTCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGTGTTGATCCTCACGCGAACGATGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCACGCACACACATGGACACATTGTGAAATTCATCCTAGCATGATTCTCGGCATTTGCGCCAGCATTATTCCTTTCCCTGATCAT----------------------------------------------------------------------CGCGAGCACGCTCTCCTCGCTTTCACCCTCGgTGTGCGGCAACTCATCGTTGCCGTCAaCAAGATGGACACGACTAAGGTAAGAAACATTTCAA-TTATAGTTAGGCTTCTTGCACATTCTCATCATCTCA-TGTAGTGGAGTGAGGACCGTTTCAACGAAATCATCAAGGAGACGTCAACCTTCATCAAGAAGGTTGGTTACAACCCCAAGGCCGTTGCCTTTGTCCCTATTTCCGGCTGGCACGGTGACAACATGTTGGAGGAGTCCCCTAAGTAAGCATTC--TCGTGTCGTCATGATCGCCCCGTCGCTCATGTCGCACTC-AGCATGCCTTGGTACAAGGGCTGGACCAAGGAGACCAAGGCTGGTGTCGTCAAGGGCAAGACCCTCCTCGATGCTATTGATGCCATTGAGCCCCCCGTCCGACCTTCCGACAAACCCCTCCGTCTCCCCCTCCAGGATGTCTACAAAATTGGCGGTATCGGAACTGTGCCCGTCGGTCGTGTTGAGACTGGTATCATCAAGGCCGGAATGGTCGTTACTTTCGCTCCCTCTAACGTCACCACTGAAGTCAAGTCCGTCGAAATGCATCACGAACAGCTCGAGCAGGGTAACCCTGGTGACAATGTCGGTTTCAACGTCAAGAACGTGTCAGTGAAAGATATTCGTCGTGGCAACGTGGCCTCCGACTCCAAGAATGATCCCGCCAAGGAAGCGGCCTCTTTCAACGCACAGGTCATCGTCCTCAACCACCCTGGTCAAATTGGTGCTGGTTACGCCCCGGTTCTCGACTGTCACACCGCCCACATCGCCTGCAAGTTCGCCGAGCTCATCGAGAAGATCGATCGTCGTACGGGTAAATCCATTGAAAaCTCGCCTAAATTCGTCAaGTCGGgTGACGCCTGCATCGTCAaGCTCGTtCCCAGCAaGCCTATG

>SB2135\_Laccaria\_laccata\_PORTUGAL\_JX504172\_JX504249\_KU686028\_KU686140

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCATCATCTTT-ATCT----CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATCGCTGTGC---TGT---ACAAGTCGGCTTTCCTTTCATTTCC-AAGACTATGTTTT---TT--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATC-AATGGGA-------------TA--T-AAAATTATACAACTTTCAGCAATGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--ATAGGCTTGGA-TGT-GGGGG--TTGCGGGCTTC-AT-----C---AATGAGGTTGGCTCTCCTTAAAAGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAA-CTTTAT---AAAGTT-CAGCTTCT-AACTGTCC---ATTAATTTGGACAA-----TTTTGACAA-TTTGGAAGCTCAAATTTAAAATCTGGCAGT-ATTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTTGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCTGATGTGTTATAGCCTTTGTTCGCATACATCGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACTCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCATGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGCATGCTTTTCCGAAAGTTGACCAAGGACGTTTATCGTTATCTACAAAAGgttgctgaccttcgttcaagtgcc-----atgagatctgctga-cccttct---ttttcagTGCGTCGAGGCCCACAAGGAGTTCAACCTTGCCCTTGCAGTTAAGCATCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGAGATCAGAAAAAGTCAATGTCTTCCAAAGCAGGAGTATCTCAGGTTTTGAACAGATACACATATGCATCCACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGGCGCGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACTCATTGGGGTATGGTGTGTCCTGCGGAAACCCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCCCTTATGGCATGCATATCAGTCGGGTCTTACTCCGCGCCCGTTATCGAGTTTTTGGAGGAGTGGGGATTGGAGTCTTTGGAAGAGAACGCACACTCATCGACACCTTGCACAAAAGTTTTCGTGAATGGTGTCTGGATGGGTGTGCATCGCGATCCTGCCAATTTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGACGACATCAGCCCAGAAGTGTCAGTTGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACTGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGCGACGAGTACAAATGGGAACATCTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCTGAGGAAGAGGAAACAGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGTGTTGATCCTCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCACGCACACACGTGGACACATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGTGCAAGCATTATTCCTTTCCCTGATCATCTGCGCCATTCTCATCATTGCTGGTGGTACTGGTGAGTTCGAGGCTGGTATATCTAAGGATGGCCAGACCCGCGAACACGCTCTCCTCGCTTTCACCCTTGGTGTGCGGCAACTCATCGTTGCCGTCAACAAGATGGACACCACTAAGGTAAGAAACGTTTCAC-CTATAGTTAGGCTCCTTCCAGATTCTCATCATCTCA-TGTAGTGGAGCGAGGACCGTTTCAACGAAATCATCAAGGAGACGTCAACCTTCATCAAGAAGGTTGGTTACAACCCCAAGGCCGTTGCCTTTGTCCCTATTTCCGGCTGGCACGGTGACAACATGTTGGAGGAGTCCTCTAAGTAAGCATTC--TCGTATTGTCATGATTGCCCCGTCACTCATGTTGCACCC-AGCATGCCTTGGTACAAGGGCTGGACCAAGGAGACCAAGGCTGGTGTCGTCAAGGGCAAGACCCTCCTCGATGCTATTGATGCCATTGAACCCCCCGTCCGACCTTCCGACAAACCCCTCCGTCTCCCCCTCCAGGATGTCTACAAAATTGGCGGTATCGGAACTGTGCCCGTCGGTCGTGTTGAGACTGGTATCATCAAGGCCGGAATGGTCGTCACTTTCGCTCCCTCCAACGTCACCACTGAAGTCAAGTCCGTCGAAATGCATCACGAACAGCTTGAGCAGGGTAACCCTGGTGACAATGTCGGTTTCAACGTCAAGAACGTGTCAGTGAAGGATATTCGTCGTGGCAACGTGGCCTCCGACTCCAAGAACGATCCCGCCAAGGAAGCGGCCTCTTTCAACGCACAGGTCATCGTCCTCAACCACCCTGGTCAAATTGGTGCTGGTTACGCCCCGGTTCTCGACTGTCACACCGCCCACATCGCCTGCAAGTTCGCCGAGCTCATCGAGAAGATCGATCGTCGTACGGGTAAATCCATTGAAAACTCGCCTAAATTCGTCAAGTCGGGTGACGCCTGCATCGTCAAGCTCGTTCCCAGCAAGCCTATG

>SB2238\_Laccaria\_bicolor\_PORTUGAL\_KM067892\_KU685886\_KU686030\_

TCTGA-TGTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCATCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATAACTCTCGGGGCAACCTCGGATT----TTAG-GATCGCCGTGC---TGT---ACAAGTCGGCTTTCCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATC-AATGGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCATC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCGGGCTTC-AT-----A---AACGAGGTCGGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTAAAGCAG-CTTTAT---GAAGTT-CAGCTTCT-AACCGTCC---ATTCATTTGGACAA----TTTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGGGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAACCCTTGC----TCTTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATCAGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGCGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGCATGCTTTTCCGAAAGTTGACCAAAGACGTTTATCGTTATCTACAAAAGgttggtgacctccgctcaagtgcc-----atgaaatgtgttga-cctctct---ccttcagTGCGTCGAGACCCACAAGGAGTTCAACCTTGCCCTTGCAGTTAAGCATCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGAGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACATCTTCGTAGGTGTAACACTCCTCTAGGGCGCGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACTCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCCTGTGGCCTTGTCAAGAACCTCGCCCTTATGGCGTGCATATCAGTCGGGTCTTACTCCGCGCCCGTCATCGAGTTTTTGGAGGAATGGGGATTGGAGTCATTGGAAGAGAACGCGCACTCATCCACACCTTGCACAAAAGTTTTCGTGAACGGTGTCTGGATGGGTGTGCATCGCGATCCTGCCAATTTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGACGACATTAGCCCAGAAGTGTCAGTTGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGCGACGAATACAAATGGGAACATCTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCTGAGGAAGAGGAAACAGTGATGATATCTATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGCGGTGTTGATCCTCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCACGCACACACATGGACACATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGTGCCAGCATTATTCCTTTCCCTGACCAT------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>SB2239\_Laccaria\_bicolor\_PORTUGAL\_KM067893\_KU685887\_KU686031\_

TCTGA-TGTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCATCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATAACTCTCGGGGCAACCTCGGATT----TTAG-GATCGCCGTGC---TGT---ACAAGTCGGCTTTCCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATC-AATGGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCATC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCGGGCTTC-AT-----A---AACGAGGTCGGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT---GAAGTT-CAGCTTCT-AACCGTCC---ATTCATTTGGACAA----TTTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGGGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAACCCTTGC----TCTTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATCAGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGCGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGCATGCTTTTCCGAAAGTTGACCAAAGACGTTTATCGTTATCTACAAAAGgttggtgacctccgctcaagtgcc-----atgaaatgtgttga-cctctct---ccttcagTGCGTCGAGACCCACAAGGAGTTCAACCTTGCCCTTGCAGTTAAGCATCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGAGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACATCTTCGTAGGTGTAACACTCCTCTAGGGCGCGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACTCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCCTGTGGCCTTGTCAAGAACCTCGCCCTTATGGCGTGCATATCAGTCGGGTCTTACTCCGCGCCCGTCATCGAGTTTTTGGAGGAATGGGGATTGGAGTCATTGGAAGAGAACGCGCACTCATCCACACCTTGCACAAAAGTTTTCGTGAACGGTGTCTGGATGGGTGTGCATCGCGATCCTGCCAATTTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGACGACATTAGCCCAGAAGTGTCAGTTGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGCGACGAATACAAATGGGAACATCTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCTGAGGAAGAGGAAACAGTGATGATATCTATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGCGGTGTTGATCCTCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCACGCACACACATGGACACATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGTGCCAGCATTATTCCTTTCCCTGACCAT------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>GMM6131\_Laccaria\_alba\_CHINA\_JX504131\_JX504210\_KU685930\_KU686079

CCTGA-TGTGACTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCATCATCTTTAATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT---TTTAG-GATCGCCGTGC---TGT---ACAAGTCGGCTTTTCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATT-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAAC--------T-TTTATTAGCTTGG--ATAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----C---AATGAGGTCAGCTCTTCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GAAAAACAG-CTTTAT---CAAGTT-CAGCTTCT-AACCGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCGAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCATTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTTGATGGG-TCAGCATCAATTTTGACTGGTAG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCACATATATCAGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCAAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCATGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGT-------------TTCCGAAAGTTGACCAAGGACGTTTTTCGtTATCTACAAAAGGTTGCTGACCTTCGCTCAAGTTTC-----ATGAGATATGCTGA-CCCCTCT---TCTTCAGTGCGTCGAGACCCACAAGGAGTTCAACCTTGCCCTTGCAGTTAAGCATCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGAGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGGCGCGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACTCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCCCTTATGGCGTGCATATCAGTCGGGTCTTACTCYGCGCCCGTTATCGAGTTTTTGGAGGAGTGGGGATTGGAGTCATTGGAAGAGAACGCGCACTCATCAACACCTTGCACAAAAGTTTTCGTGAACGGTGTCTGGATGGGTGTGCATCGTGATCCTGCCAATCTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGACGACATTAGCCCAGAAGTGTCAGTTGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTCTTCATTGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGCGACGAGTACAAATGGGAACATCTAGTAAAGGGTGGCATCATCGAGTTACTGGATGCTGAGGAAGAAGAAACAGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAGAGTGGTGTTGATCCTCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCACGCACACACATGGACACATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGTGCCAGCATTGTTCCTTTCCCT----------------------------------------------------------------------------CGCGAGCACGCCCTCCTCGCTTTCACCCTCGGTGTGCGGCAACTCATCGTTGCCGTCAACAAGATGGACACCACTAAGGTAAGAAACGTTCCAC-CTATAGTTAGGCTTCTTACACATTCTCATCATCTCA-TGTAGTGGAGCGAGGACCGTTTCAACGAAATTATCAAGGAGACGTCAACCTTCATCAAGAAGGTTGGTTACAACCCAAAGGCTGTTGCCTTTGTCCCTATTTCCGGCTGGCACGGCGACAACATGTTGGAGGAGTCCGCTAAGTAAGCATTC--TCGTATCATCATGATCGCCCCGTCGCTCATGTTGCACACAAGCATGCCTTGGTACAAGGGCTGGACCAGGGAGACCAAGGCTGGTGTCGTCAAGGGCAAGACTCTCCTCGATGCTATTGATGCCATTGAACCCCCCGTCCGACCTTCCGACAAACCCCTCCGTCTCCCCCTCCAGGATGTCTACAAAATTGGCGGTATCGGAACTGTGCCCGTCGGTCGTGTTGAGACTGGTATCATCAAGGCCGGAATGGTCGTCACTTTCGCTCCCTCCAACGTCACCACTGAAGTCAAGTCCGTCGAAATGCATCACGAACAGCTCGAGCAGGGTAATCCTGGTGACAATGTCGGTTTCAATGTCAAGAACGTGTCAGTAAAGGATATTCGTCGTGGCAACGTGGCCTCCGACTCCAAGAACGATCCAGCCAAGGAAGCAGCCTCTTTCAACGCACAGGTCATTGTCCTCAACCACCCTGGTCAAATTGGTGCTGGTTACGCCCCAGTTCTCGACTGTCACACTGCCCACATCGCCTGCAAGTTCGCCGAGCTCATCGAGAAGATCGATCGTCGTACGGGTAAATCCATCGAAAACTCGCCTAAATTTGTCAAGTCGGGTGACGCCTGCATCGTCAAACTCGTTCCCAGCAAGCCTATG

>F1120750\_Laccaria\_alba\_CHINA\_JX504126\_JX504242\_\_

----A-TGTGACTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCATCATCTTTAATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT---TTTAG-GATCGCCGTGC---TGT---ACAAGTCGGCTTTTCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATT-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAAC--------T-TTTATTAGCTTGG--ATAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----C---AATGAGGTCAGCTCTTCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GAAAAACAG-CTTTAT---CAAGTT-CAGCTTCT-AACCGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGGGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGT-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>F1133825\_Laccaria\_proxima\_USA\_MS\_KU686064\_KU685786\_KU686065\_

-CTGA-TGTGACTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCATCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGAAA-CTYGGATT----TTAG-GATCGCCGTGC---TGT---ACAAGTCGGCTTTTCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTATAGAATGTCATC-AATGGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCYGAGGAGCATGCCTGTTTGAGTGTCATTAAW-TTCTCAA-CCTTCCAAC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----C---ACTGAGGTCGGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT---GAAGTT-CTGCTTCT-AACCGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATATGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC------TTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCACATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTATTTGGGTGAAAAACCCGAGTGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGCATGCTTTTCCGAAAGTTGACCAAGGACGTTTATCGTTATCTACAAAAGGTTGCTGACTTTCRCTCAAGTGCC-----ATGAGACGTRTTGA-YCTCTCTNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACATCTYCGTCGGTGTAACACTCCTCTRGGACGCGAAGGCAAGATCGCCAARCCTCGTCAGTTGCACAACACCCATTGGGG----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>F1068333\_Laccaria\_amethysteooccidentalis\_USA\_WI\_KU685629\_KU685773\_KU686061\_

-CTGA-TGTGACTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCATCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGAAA-CTYGGATT----TTAG-GATCGCCGTGC---TGT---ACAAGTCGGCTTTTCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTATAGAATGTCATC-AATGGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAAC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----C---ACTGAGGTCGGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT---GAAGTT-CTGCTTCT-AACCGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATATGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC------TTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCACATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTATTTGGGTGAAAAACCCGAGTGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGCATGCTTTTCCGAAAGTTGACCAAGGACGTTTATCGTTATCTACAAAAGGTTGCTGACTTTCACTCAAGTGCC-----ATGAGACGTRTTGA-CCTCTCW---TCTTCAGTGCGTCGAGACCCACAAGGAGTTYAACCTTGCCCTTGCAGTTAAGCATCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGGGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTRGGGCGCGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACCMAYTGGGG----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>SB2133\_Laccaria\_laccata\_PORTUGAL\_KM067887\_KU685884\_KU686027\_KU686139

CCTGA-TGTGACTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCGTCATCTTTAATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGAAA-CTCGGATT----TTAG-GATCGCCGTGC---TGT---ACAAGTCGGCTTTTCTTTCATTTCC-AAGACTATGTTTT-------A-TATACA-CCAAAGTATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACACAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTGGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----C---AATGAGGTCAGCTCTCCTTAAATGCATTAGCAGAACTTTTGTGGACTGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGACGCAA-CTTTAW---GAAGTT-CAGCTTCT-AACTGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCGAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC--TATTTTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCACATATATCAGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTATTCCGCATGCTTTTCCGAAAGTTGACTAAGGACGTTTATCGTTATCTGCAAAAGgttgccgaccttcgctcaagtgcc-----atgagatatgctga-cccctct---tcttcagTGCGTCGAGACCCACAAGGAGTTCAACCTTGCCCTTGCAGTTAAGCATCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGAGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGGCGCGAAGGCAAGATCGCCAAACCTCGTCAGTTGCATAACACTCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCCCTTATGGCGTGCATATCAGTCGGGTCTTACTCCGCGCCCGTTATCGAGTTTTTGGAGGAGTGGGGATTGGAGTCATTGGAAGAGAACGCGCACTCATCAACACCTTGCACAAAAGTTTTCGTGAACGGTGTCTGGATGGGTGTACATCGCGATCCTGCCAATTTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGACGACATTAGCCCAGAAGTGTCAGTTGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGCGACGATTACAAATGGGAACATCTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCCGAGGAAGAGGAAACAGTGATGATTTCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGTGTTGATCCTCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAAGCTGGCACTCACGCACACACATGGACACATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGTGCCAGCATTATTCCTTTCCCTGATCATCTGCGCCATTCTCATCATTGCTGGTGGTACTGGTGAGTTCGAGGCTGGTATCTCCAAGGATGGCCAGACCCGCGAGCACGCTCTCCTCGCTTTCACCCTCGGCGTGCGGCAACTCATCGTTGCCGTCAACAAGATGGACACCACTAAGGTAAGAAACGTTTCAC-TTATAGTTAGGCTTCTTGCACATTCTCATCATCTCA-TGTAGTGGAGCGAGGACCGTTTCAACGAAATCATCAAGGAGACGTCAACCTTCATCAAGAAGGTTGGTTACAACCCCAAGGCCGTTGCCTTTGTTCCTATTTCCGGCTGGCACGGTGACAACATGTTGGAGGAGTCGGCTAAGTAAGGATTC--TCGTATCGTCATGATCGCCCCGTCGCTTATGTTGCACTCAAGCATGCCTTGGTACAAGGGCTGGACCAGGGAGACCAAGGCTGGTCCCGTCAAGGGCAAGACCCTCCTCGATGCTATTGATGCCATTGAACCCCCCGTCCGACCTTCCGACAAACCCCTCCGTCTCCCCCTCCAGGATGTCTACAAAATTGGCGGTATCGGAACTGTGCCCGTCGGTCGTGTTGAGACTGGTATCATCAAGGCCGGAATGGTCGTCACTTTCGCTCCCTCCAACGTCACCACTGAAGTCAAGTCTGTCGAAATGCATCACGAACAGCTCGAGCAGGGTAACCCTGGTGACAATGTCGGTTTCAACGTCAAGAACGTGTCAGTGAAGGATATTCGTCGTGGCAACGTGGCCTCCGACTCCAAGAACGATCCCGCCAAGGAAGCGGCCTCTTTCAACGCACAGGTCATCGTCCTCAACCACCCTGGTCAAATTGGTGCTGGTTACGCCCCAGTTCTCGACTGTCACACCGCCCACATCGCCTGCAAGTTCGCCGAGCTCATCGAGAAGATCGATCGTCGTACGGGTAAATCCATTGAAAACTCGCCTAAATTCGTCAAGTCGGGTGACGCCTGCATCGTCAAGCTCGTTCCCAGCAAGCCTATG

>SB2210\_Laccaria\_laccata\_PORTUGAL\_KM067890\_KU685885\_KU686029\_KU686141

CCTGA-TGTGACTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCGTCATCTTTAATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGAAA-CTCGGATT----TTAG-GATCGCCGTGC---TGT---ACAAGTCGGCTTTTCTTTCATTTCC-AAGACTATGTTTT-------A-TATACA-CCAAAGTATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTGGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----C---AATGAGGTCAGCTCTCCTTAAATGCATTAGCAGAACTTTTGTGGACTGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGACGCAG-CTTTAT---GAAGTT-CAGCTTCT-AACTGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGTTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCGAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC--TATTTTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCACATATATCAGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTATTCCGCATGCTTTTCCGAAAGTTGACTAAGGACGTTTATCGTTATCTGCAAAAGgttgccgaccttcgctcaagtgcc-----atgagatatgctga-cccctct---tcttcagTGCGTCGAGACCCACAAGGAGTTCAACCTTGCCCTTGCAGTTAAGCATCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGAGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGGCGCGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACTCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCCCTTATGGCGTGCATATCAGTCGGGTCTTACTCCGCGCCCGTTATCGAGTTTTTGGAGGAGTGGGGATTGGAGTCATTGGAAGAGAACGCGCACTCATCAACACCTTGCACAAAAGTTTTCGTGAACGGTGTCTGGATGGGTGTACATCGCGATCCTGCCAATTTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGACGACATTAGCCCAGAAGTGTCAGTTGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGCGACGATTACAAATGGGAACATCTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCCGAGGAAGAGGAAACAGTGATGATTTCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGTGTTGATCCTCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAAGCTGGCACTCACGCACACACATGGACACATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGTGCCAGCATTATTCCTTTCCCTGATCATCTGCGCCATTCTCATCATTGCTGGTGGTACTGGTGAGTTCGAGGCTGGTA-CTCCAAGGATGGCCAGACCCGCGAGCACGCTCTCCTCGCTTTCACCCTCGGCGTGCGGCAACTCATCGTTGCCGTCAACAAGATGGACACCACTAAGGTAAGAAACGTTTCAC-TTATAGTTAGGCTTCTTGCACATTCTCATCATCTCA-TGTAGTGGAGCGAGGACCGTTTCAACGAAATCATCAAGGAGACGTCAACCTTCATCAAGAAGGTTGGTTACAACCCCAAGGCCGTTGCCTTTGTTCCTATTTCCGGCTGGCACGGTGACAACATGTTGGAGGAGTCGGCTAAGTAAGGATTC--TCGTATCGTCATGATCGCCCCGTCGCTTATGTTGCACTCAAGCATGCCTTGGTACAAGGGCTGGACCAGGGAGACCAAGGCTGGTCCCGTCAAGGGCAAGACCCTCCTCGATGCTATTGATGCCATTGAACCCCCCGTCCGACCTTCCGACAAACCCCTCCGTCTCCCCCTCCAAGATGTCTACAAAATTGGCGGTATCGGAACTGTGCCCGTCGGTCGTGTTGAGACTGGTATCATCAAGGCCGGAATGGTCGTCACTTTCGCTCCCTCCAACGTCACCACTGAAGTCAAGTCTGTCGAAATGCATCACGAACAGCTCGAGCAGGGTAACCCTGGTGACAATGTCGGTTTCAACGTCAAGAACGTGTCAGTGAAGGATATTCGTCGTGGCAACGTGGCCTCCGACTCCAAGAACGATCCCGCCAAGGAAGCGGCCTCTTTCAACGCACAGGTCATCGTCCTCAACCACCCTGGTCAAATTGGTGCTGGTTACGCCCCAGTTCTCGACTGTCACACCGCCCACATCGCCTGCAAGTTCGCCGAGCTCATCGAGAAGATCGATCGTCGTACGGGTAAATCCATTGAAAACTCGCCTAAATTCGTCAAGTCGGGTGACGCCTGCATCGTCAAGCTCGTTCCCAGCAAGCCTATG

>F1123584\_Laccaria\_ochropurpurea\_USA\_IL\_F1123584\_F1123584\_\_

CCTGA-TGTGGCTGTTAGCTGGC-TTTTTGAAGCATGTGCTCGT-CCGTCGTCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT--TTTAGG-GATCGCCGTGC---TGT---ACAAGTCGGCTTTCTTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATA-AAAAGGAAC---TTGATTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGGTTTTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----T---AATGAGGTTAGCTCTCCTTAAATGCATTAGCAGAACTTTTGTGGACTGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-ATTTAT---GAAGTT-CAGCTTCT-AACTGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGGGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGT-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>F1121451\_Laccaria\_laccata\_CHINA\_JX504128\_JX504208\_\_

-CTGA-TGTGACTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCGTCATCTTTAATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATCGCCGTGC---TGT---ACAAGTCGACTTTTCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCATS--------T-TTTATTAGCATGG--TTAGGCTTGGA-TGT-GGGGG--TTGCGGGCTTC-AT-----C---AATGATGTCAGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AGTTATCTACGCCGTGGAT-GTGATGCAG-CTTTAT---GAAGTT-CAGCTTCT-AACCGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCGAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTAG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCCTTGTTCACATATATCAGTTGGAATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGAGTGAAAAACCCGAGCGCATAATGAAAGTG-AAAGTTGAGATCCCTGTCATGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGGGCATGT-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>AWW585\_Laccaria\_bicolor\_USA\_OR\_JX504111\_JX504194\_\_

CCTGA-TGTGATTGTTAGCTGGC-TTTTCGAAGCATGTGCTCAT-CCGTCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGAAA-CTCGGATT----TTAG-AATCGCTGTGC---TGT---ACAAGTCGGCTTTTCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTATAGAATGTCATC-AATGGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAAC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCGGGCTTG-AT-----T---AATGAGGTCGGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT---GAAGTT-CTGCTTCT-AACCGTCC---ATTGACTTGGACAA-----TTTTGATAA--TTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATATGCTCTCRAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTTGATGGG-TCAGCATCAATTTTGACCGGTGG-AAAAAGTTCAAAGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCACATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTCCGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTATTTGGGTGAAAAACCCGAGTGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGT-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>GMM7607\_Laccaria\_bicolorproxima\_FRANCE\_KM067846\_28S\_RPB2\_EF1a

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCATCATCTTT-ATCT----CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATCGCTGTGC---TGT---ACAAGTCGGCTTTCCTTTCATTTCC-AAGACTACGTTTT----T--A-TACACA-CTAAAGTATGTTTAAAGAATGTCATC-AATGGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--ATAGGCTTGGA-TGT-GGGGG--TTGCGGGCTTC-AT-----C---AATGAGGTTGGCTCTCCTTAAAAGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAA-CTTTAT---AAAGTT-CAGCTTCT-AACTGTCC---ATTAACTTGGACAA-----TTTTGACAA-TTTGGAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTTGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCTGATGTGTTATAGCCTTTGTTCGCATACATCGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACTCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCATGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGCATGCTTTTCCGAAAGTTGACCAAGGACGTTTATCGTTATCTACAAAAGgttgctgaccttcgttcaagtgcc-----atgagatctgctga-cccttct---ttttcagTGCGTCGAGGCCCACAAGGAGTTCAACCTTGCCCTTGCAGTTAAGCATCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGAGATCAGAAAAAGTCAATGTCTTCCAAAGCAGGAGTATCTCAGGTTTTGAACAGATACACATATGCATCCACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGGCGYGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACTCATTGGGGTATGGTGTGTCCTGCGGAAACCCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCCCTTATGGCATGCATATCAGTCGGGTCTTACTCCGCGCCCGTTATCGAGTTTTTGGAGGAGTGGGGATTGGAGTCTTTGGAAGAGAACGCACACTCATCGACACCTTGCACAAAAGTTTTCGTGAATGGTGTCTGGATGGGTGTGCATCGCGATCCTGCCAATTTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGACGACATCAGCCCAGAAGTGTCAGTTGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACTGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGCGACGAGTACAAATGGGAACATCTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCTGAGGAAGAGGAAACAGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGTGTTGATCCTCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCACGCACACACGTGGACACATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGTGCAAGCATTATTCC-TTCCCTGATCATCTGCGCCATTCTCATCATTGCTGGTGGTACTGGTGAGTTCGAGGCTGGTATATCTAAGGATGGCCAGACCCGCGAACACGCTCTCCTCGCTTTCACCCTTGGTGTGCGGCAACTCATCGTTGCCGTCAACAAGATGGACACCACTAAGGTAAGAAACGTTTCAC-CTGTAGTTAGGCTCCTTCCAGATTCTCATCATCTCA-TGTAGTGGAGCGAGGACCGTTTCAACGAAATCATCAAGGAGACGTCAACCTTCATCAAGAAGGTTGGTTACAACCCCAAGGCCGTTGCCTTTGTCCCTATTTCCGGCTGGCACGGTGACAACATGTTGGAGGAGTCCTCTAAGTAAGCATTC--TCGTATTGTCATGATTGCCCCGTCACTCATGTTGCACCC-AGCATGCCTTGGTACAAGGGCTGGACCAAGGAGACCAAGGCTGGTGTCGTCAAGGGCAAGACCCTCCTCGATGCTATTGATGCCATTGAACCCCCCGTCCGACCTTCCGACAAACCCCTCCGTCTCCCCCTCCAGGATGTCTACAAAATTGGCGGTATCGGAACTGTGCCCGTCGGTCGTGTTGAGACTGGTATCATCAAGGCCGGAATGGTCGTCACTTTTGCTCCCTCCAACGTCACCACTGAAGTCAAGTCCGTCGAAATGCATCACGAACAGCTTGAGCAGGGTAACCCTGGTGACAATGTCGGTTTCAACGTCAAGAACGTGTCAGTGAAGGATATTCGTCGTGGCAACGTGGCCTCCGACTCCAAGAACGATCCCGCCAAGGAAGCGGCCTCTTTCAACGCACAGGTCATCGTCCTCAACCACCCTGGTCAAATTGGTGCTGGTTACGCCCCGGTTCTCGACTGTCACACCGCCCACATCGCCTGCAAGTTCGCCGAGCTCATCGAGAAGATCGATCGTCGTACGGGTAAATCCATTGAAAACTCGCCTAAATTCGTCAAGTCGGGTGACGCCTGCATCGTCAAGCTCGTTCCCAGCAAGCCTATG

>GMM7612\_Laccaria\_macrocystidia\_FRANCE\_KM067847\_KU685861\_KU686002\_KU686122

CCTGA-TGTGACTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCGTCATCTTTAATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATCGCCGTGC---TGC---ACAAGTCGGCTTTCCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCATGG--TTAGGCTTGGA-TGT-GGGGG--TTGTGGGCTTC-AT-----C---AATGAGGTCGGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCTGTGGAT-GTGAAGCAG-ATTTAT---GAAGTT-CAGCTTCT-AACTGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGCTTT-GTGATGTGCTCTCGAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTTGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCACATATATCAGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCATGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGCATGCTTTTCCGAAAGTTGACTAAGGACGTTTATCGTTATCTACAAAAGgttgctgaccttcgctcgagtgcc-----ttgagatatgctga-cccctct---tctttagTGCGTCGAGACCCACAAGGAGTTCAACCTTGCCCTTGCAGTCAAGCATCAAACCATCACAAATGGTCTCAAATACTCTCTGGCGACAGGTAACTGGGGAGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGGCGCGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACTCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCCCTTATGGCGTGCATATCAGTCGGGTCTTACTCCGCGCCCGTTATCGAGTTTTTGGAGGAGTGGGGATTGGAGTCATTGGAAGAGAACGCGCACTCATCAACACCTTGCACAAAAGTTTTCGTGAACGGTGTCTGGATGGGTGTGCATCGCGATCCTGCCAATTTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGACGACATTAGCCCAGAAGTGTCAGTCGTGCGAGACATTAGGGAGAAGGAATTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGCGATGAGTACAAATGGGAGCATCTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCTGAGGAAGAGGAAACAGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGTGTTGATCCTCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCACGCACACACATGGACACATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGTGCCAGCATTATTCCTTTCCCTGATCATCTGCGCCATTCTCATCATTGCTGGTGGTACTGGTGAGTTCGAGGCTGGCATCTCCAAGGATGGCCAGACCCGCGAGCACGCTCTCCTCGCTTTCACCCTTGGTGTGCGGCAACTCATCGTTGCCGTCAACAAGATGGACACCACTAAGGKAAGAAACGTTTCAC-TTATAGTTAGGCTTCTTGCACATTCTCATCATCTCA-TGTAGTGGAGCGAGGACCGTTTCAACGAAATCATCAAGGAGACGTCAACCTTCATCAAGAAGGTTGGTTACAACCCCAAGGCCGTTGCCTTTGTCCCTATTTCCGGCTGGCACGGTGACAACGTGTTGGAGGAGTCCGCTAAGTGAGCATTC--TCGTATCGTCATGACCGCCCCGTCGCTCATGTTGCACTCAAGCATGCCTTGGTACAAGGGCTGGACCAGGGAGACCAAGGCTGGTCCCGTCAAGGGCAAGACCCTCCTCGATGCTATCGATGCCATTGAACCCCCTGTCCGACCTTCCGACAAACCCCTCCGTCTCCCCCTTCAGGATGTCTACAAAATTGGTGGTATCGGAACTGTGCCCGTCGGTCGTGTTGAGACTGGTATCATCAAGTCCGGAATGGTCGTCACTTTCGCCCCCTCCAACGTCACCACTGAAGTTAAGTCCGTCGAAATGCATCACGAACAGCTCGAGCAGGGTAACCCCGGTGACAATGTCGGTTTCAACGTCAAGAACGTGTCAGTGAAGGATATTCGTCG-GGCAACGTGGCCTCCGACTCCAAGAACGATCCCGCCAAGGAAGCGGCCTCTTTCAACGCACAGGTCATCGTCCTCAACCACCCTGGTCAAATTGGTGCTGGTTACGCCCCGGTTCTCGACTGTCACACCGCCCACATCGCCTGCAAGTTCGCCGAGCTCATCGAGAAGATCGATCGTCGTACGGGTAAATCCATCGAAAATTCGCCTAAATTTGTCAAGTCGGGTGACGCCTGCATCGTCAAGCTTGTCCCCAGCAAGCCTATG

>GMM7620\_Laccaria\_sp\_FRANCE\_KM067854\_28S\_RPB2\_EF1a

CCTGA-TGTGATTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCGTCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGAAA-CTCGGATT----TTAG-GATCGCTGTGC---TGT---ACAAGTCGGCTTTTCTTTCATTTCC-AAGACTATGTTTT--TAT--A-TATACA-CCAAAGTATGTTTATAGAATGTCATC-AATGGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAAC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCGGGCTTC-AT-----T---AATGAGGTCGGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT---GAAGTT-CTGCTTCT-AACCGTCC---ATTGACTTGGACAA----TTTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATATGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACCGGTGG-AAAAAGTTCAAAGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCACATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTATTTGGGTGAAAAACCCGAGTGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGCATGCTTTTCCGAAAGTTGACCAAGGACGTTTATCGTTATCTACAAAAGgtttctgactttcgtttaagtgct-----atgagacgtattga-cctctct---tcttcagTGCGTCGAGACCCATAAGGAGTTCAACCTTGCCCTTGCAGTTAAGCATCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGGGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGGCGCGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACCCATTGGGGTATGGTGTGCCCTGCGGAAACTCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCCCTTATGGCGTGCATATCAGTCGGGTCTTACTCCGCGCCCGTCATCGAGTTTTTGGAGGAATGGGGATTGGAGTCATTGGAAGAGAACGCGCACTCATCAACTCCCTGCACAAAAGTTTTCGTGAACGGTGTATGGATGGGTGTGCATCGCGATCCTGCCAACTTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGACGACATTAGCCCTGAAGTGTCAGTTGTGCGAGACATCCGAGAGAAGGAATTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTTTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGCGACGAATACAAATGGGAGCATCTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCTGAGGAAGAGGAAACGGTGATGATATCCATGACTCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGCGTTGATCCTCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTAAAGGCTGGCACTCACGCACACACATGGACACATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGTGCCAGCATTATTCCTTTCCCCGATCATCTGCGCCATTCTCATCATTGCTGGTGGTACTGGTGAGTTTGAGGCTGGTATCTCCAAGGATGGCCAGACCCGCGAGCACGCTCTCCTCGCTTTCACCCTCGGTGTGCGGCAACTCATCGTTGCCGTCAACAAGATGGACACCACCAAGGTAAGAAAAGTTTCAC-TTATAGTCAGGCTTCTTCCACATGCTCATCACCTCAT-GCAGTGGAGCGAGGACCGTTTCAACGAAATTATCAAGGAGACATCAAGCTTCATCAAGAAGGTTGGTTACAACCCCAAGGCCGTTGCCTTTGTTCCTATTTCCGGCTGGCACGGTGACAACATGTTGGAGGAGTCCCCTAAGTAAGTATTC--TCGTATCGTCATTATCGCCCCGTCGCTCATGTCACACTC-AGCATGCCTTGGTTCAAGGGCTGGACCAAGGAGACCAAGGCTGGTGTCGTCAAGGGCAAGACCCTCCTCGATGCTATTGATGCCATTGAGCCCCCCGTCCGACCTTCCGACAAGCCCCTCCGTCTTCCCCTCCAGGACGTTTACAAAATTGGCGGTATCGGAACTGTGCCCGTCGGTCGTGTTGAGACTGGTATCATCAAGGCCGGAATGGTCGTCAATTTCGCTCCCTCCAACGTCACCACTGAAGTCAAGTCCGTCGAAATGCATCACGAACAGCTCGAGCAGGGTAACCCTGGTGACAATGTCGGTTTCAACGTCAAGAACGTGTCAGTGAAGGATATTCGTCGTGGCAACGTGGCCTCCGACTCCAAGAACGATCCCGCCAAGGAAGCGGCCTCTTTCAACGCACAGGTCATCGTCCTCAACCACCCTGGTCAAATTGGTGCTGGTTATGCCCCGGTTCTCGACTGTCACACCGCCCACATCGCCTGCAAGTTCGCCGAGCTCATCGAAAAGATCGATCGTCGTACGGGTAAATCCATTGAAAACTCGCCCAAATTCGTCAAGTCGGGTGACGCCTGCATCGTCAAGCTCGTTCCCAGCAAGCCTATG

>GMM7621\_Laccaria\_amethystina\_FRANCE\_JX504150\_JX504224\_KU686046\_KU686152

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCGTCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATCGCTGTGC---TGT---ACAAGTCGGCTTTCCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--T-ATAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC-------TT-TTTATAAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGTGGGCTTC-AT-----T---AATGAGGTCAGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-ATTTAT---GAAGTT-CAGCTTCT-AACCGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGGGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGCTTT-GTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACCGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTAGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGCATGCTTTTCCGAAAGCTGTCCAAGGACGTTTATCGTTATCTACAAAAGgttgctgaccttcgtttaagtgcc-----atgagatgtgctga-cgcctaa---tcttcagTGTGTCGAGACCCACAAAGAGTTCAACCTTGCCCTTGCAGTTAAGCATCAAACCATCACAAACGGTCTCAAATACTCTCTGGCGACAGGTAACTGGGGAGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCGTCCACTCTGTCACATCTTCGTCGGTGTAACACTCCTTTAGGGCGCGAAGGCAAGATCGCCAAACCTCGTCAGCTGCACAACACTCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCCCTTATGGCGTGCATATCAGTCGGGTCTTACTCTGCGCCTGTTATCGAGTTTTTGGAGGAGTGGGGATTGGAGTCATTGGAAGAGAACGCACACTCATCGACACCTTGCACAAAAGTTTTCGTGAACGGTGTCTGGATGGGTGTGCATCGCGATCCTGCCAATTTGGTCAAGACGATAAAGAAACTGAGAAGGAAAGATGACATCAGCCCAGAAGTGTCAGTTGTGCGAGACATTAGGGAGAAGGAACTCAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGCGACGAGTACAAATGGGAACATCTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCTGAGGAAGAGGAAACGGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGTGTTGACCCCCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCACGCACACACATGGACTCATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGTGCCAGCATTATTCCTTTCCCTGATCATCTGCGCCATTCTCATCATTGCTGGTGGTACTGGTGAGTTCGAGGCTGGTATCTCCAAGGATGGCCAGACCCGCGAGCACGCTCTCCTCGCTTTCACCCTCGGTGTGCGGCAACTCATCGTGGCCGTCAACAAGATGGACACCACCAAGGTAAGAAACGTTTGAC-TTATAGTTAGGCTTCTTTCACATTTTCATCATCTCA-TGTAGTGGAGCGAGGACCGTTTCAACGAAATCATCAAGGAGACGTCAACCTTCATCAAGAAGGTTGGTTACAACCCCAAGGCCGTTGCCTTTGTCCCTATTTCCGGCTGGCACGGTGACAACATGTTGGAGGAGTCCGCTAAGTGAGCATTC--TCGTATCGTTATGGTCGCCCCGTSGCTCATGTTACATTC-AGCATGCCTTGGTACAAGGGCTGGACCAGGGAGACCAAGGCTGGTCCCGTCAAGGGCAAGACCCTCCTCGATGCTATTGATGCCATTGARCCCCCCGTCCGACCTTCCGACAAACCCCTCCGTCTCCCCCTCCAGGATGTCTACAAAATTGGCGGTATTGGAACTGTGCCCGTCGGTCGTGTTGAGACTGGTATCATCAAGGCCGGAATGGTCGTCACTTTCGCGCCCTCCAACGTCACCACTGAAGTCAAGTCCGTCGAAATGCATCACGAACAGCTCGAGCAGGGTAACCCTGGTGACAATGTCGGTTTCAACGTCAAGAACGTGTCAGTGAAGGATATTCGTCGTGGCAACGTGGCCTCCGACTCCAAGAACGATCCGGCCAAGGAAGCGGCCTCTTTCAACGCACAGGTCATCGTCCTCAACCACCCTGGTCAAATTGGTGCTGGTTACGCCCCAGTTCTCGACTGTCACACCGCCCACATCGCCTGCAAGTTYGCCGAGCTTATCGAGAAGATCGATCGTCGTACGGGTAAATCTATTGAAAATTCGCCTAAATTCGTCAAATCGGGTGACGCCTGCATCGTCAAGCTCGTTCCCAGCAAGCCTATG

>GMM7628\_Laccaria\_proxima?\_FRANCE\_KM067857\_KU685867\_KU686008\_KU686127

CCTGA-TGTGACTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCGTCATCTTTAATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATCGCCGTGC---TGC---ACAAGTCGGCTTTCCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCATGG--TTAGGCTTGGA-TGT-GGGGG--TTGTGGGCTTC-AT-----C---AATGAGGTCGGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCTGTGGAT-GTGAAGCAG-ATTTAT---GAAGTT-CAGCTTCT-AACTGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGCTTT-GTGATGTGCTCTCGAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTTGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCACATATATCAGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCATGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCGGCATGCTTTTCCGAAAGTTGACTAAGGACGTTTATCGTTATCTACAAAAAgttgctgaccttcgctcgagtgcc-----ttgagatatgctga-cccctct---tctttagTGCGTCGAGACCCACAAGGAGTTCAACCTTGCCCTTGCAGTCAAGCATCAAACCATCACAAATGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGAGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACTTATGCATCCACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGGCGCGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACTCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCCCTTATGGCGTGCATATCAGTCGGGTCTTACTCCGCGCCCGTTATCGAGTTTTTGGAGGAGTGGGGATTGGAGTCATTGGAAGAGAACGCGCACTCATCAACACCTTGCACAAAAGTTTTCGTGAACGGTGTCTGGATGGGTGTGCATCGCGATCCTGCCAATTTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGACGACATTAGCCCAGAAGTGTCAGTCGTGCGAGACATTAGGGAGAAGGAATTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGCGATGAGTACAAATGGGAGCATCTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCTGAGGAAGAGGAAACAGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGTGTTGATCCTCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCACGCACACACATGGACACATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGTGCCAGCATTATTCCTTTCCCTGATCATCTGCGCCATTCTCATCATTGCTGGTGGTACTGGTGAGTTCGAGGCTGGCATCTCCAAGGATGGCCAGACCCGCGAGCACGCTCTCCTCGCTTTCACCCTYGGTGTGCGGCAACTCATCGTTGCCGTCAACAAGATGGACACCACTAAGGTAAGAAACGTTTCAC-TTATAGTTAGGCTTCTTGCACATTCTCATCATCTCA-TGTAGTGGAGCGAGGACCGTTTCAACGAAATCATCAAGGAGACGTCAACCTTCATCAAGAAGGTTGGTTACAACCCCAAGGCCGTTGCCTTTGTCCCTATTTCCGGCTGGCACGGTGACAACATGTTGGAGGAGTCCGCTAAGTGAGCATTC--TCGTATCGTCATGACCGCCCCGTCGCTCATGTTGCACTCAAGCATGCCTTGGTACAAGGGCTGGACCAGGGAGACCAAGGCTGGTCCCGTCAAGGGCAAGACCCTCCTCGATGCTATCGATGCCATTGAACCCCCTGTCCGACCTTCCGACAAACCCCTCCGTCTCCCCCTTCAGGATGTCTACAAAATTGGTGGTATCGGAACTGTGCCCGTCGGTCGTGTTGAGACTGGTATCATCAAGTCCGGAATGGTCGTCACTTTCGCCCCCTCCAACGTCACCACTGAAGTTAAGTCCGTCGAAATGCATCACGAACAGCTCGAGCAGGGTAACCCCGGTGACAATGTCGGTTTCAACGTCAAGAACGTGTCAGTGAAGGATATTCGTCGTGGCAACGTGGCCTCCGACTCCAAGAACGATCCCGCCAAGGAAGCGGCCTCTTTCAACGCACAGGTCATCGTCCTCAACCACCCTGGTCAAATTGGTGCTGGTTACGCCCCGGTTCTCGACTGTCACACCGCCCACATCGCCTGCAAGTTCGCCGAGCTCATCGAGAAGATCGATCGTCGTACGGGTAAATCCATCGAAAATTCGCCTAAATTTGTCAAGTCGGGTGACGCCTGCATCGTCAAGCTTGTCCCCAGCAAGCCTATG

>GMM7631France\_Laccaria\_bicolorproxima\_FRANCE\_KM067858\_KU685869\_KU686010\_KU686129

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCGTCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATAACTCTCGAGGCAA-CTCGGATT----TTAG-AATCGCCGTGC---TGC---ACAAGTCGGCTTTCCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTCAAAGAATGTCATC-AATGGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAAC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCGGGCTTC-AT-----T---AACGAGGTCGGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT---GAAGTT-CAGCTTCT-AACCGTCC---ATTTATTTGGACAA----TTTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGGGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATCAGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGCGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGCATGCTTTTCCGAAAGTTGACCAAAGACGTTTATCGTTATCTACAAAAGgttgctgatcttcgctcaagtgcc-----atgagatgtgctga-cctctct---ttttcagTGCGTCGAGACCCACAAGGAGTTCAACCTTGCCCTTGCAGTTAAGCATCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGAGATCAAAAAAAGTCAATGTCTTCTAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGGCGCGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACTCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCCCTTATGGCGTGCATATCAGTCGGGTCTTACTCCGCGCCCGTTATCGAGTTTTTGGAGGAATGGGGATTGGAGTCGTTGGAAGAGAACGCGCACTCATCAACACCTTGCACAAAAGTTTTCGTGAACGGTGTCTGGATGGGTGTGCATCGCGATCCTGCCAATTTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGATGACATTAGCCCAGAAGTGTCAGTTGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGTGACGAATACAAATGGGAACATCTGGTAAAGGGTGGCATCATTGAGCTACTGGATGCTGAGGAAGAGGAAACAGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGCGGTGTCGATCCTCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCACGCACACACCTGGACACATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGTGCCAGCATTATTCCTTTCCCCGATCATCTGCGCCATTCTCATCATTGCTGGTGGTACTGGTGAGTTCGAGGCTGGTATCTCCAAGGATGGCCAGACCCGCGAGCACGCTCTCCTCGCTTTCACCCTCGGTGTGCGGCAACTCATCGTTGCCGTCAACAAGATGGACACCACCAAGGTAAGAAACCTTTGAC-TTATAGTTAGGCTTCTTGCGCATTCTCATCGTCTCA-TGTAGTGGAGCGAGGACCGTTTCAACGAAATCATCAAGGAGACGTCAACTTTCATCAAGAAGGTTGGTTACAACCCCAAGGCTGTTGCCTTTGTCCCTATTTCCGGCTGGCACGGTGACAACATGTTGGAGGAGTCTCCCAAGTAAGCATTC--TCGTATTGTCATGATCGCCCCGTCGTTCATGTTGCACTC-AGCATGCCTTGGTACAAGGGCTGGACCAAGGAGACCAAGGCTGGTGTCGTCAAGGGCAAGACCCTCCTCGATGCTATTGATGCCATTGAGCCCCCCGTCCGACCTTCCGACAAACCTCTCCGTCTCCCCCTCCAGGATGTCTACAAAATTGGCGGTATCGGAACTGTGCCCGTCGGTCGTGTTGAGACTGGTATCATCAAGGCCGGAATGGTCGTCACCTTTGCTCCCTCCAACGTCACCACTGAAGTCAAGTCCGTGGAAATGCACCACGAGCAGCTCGAGCAGGGTAACCCTGGTGACAATGTCGGTTTCAACGTCAAGAACGTGTCAGTGAAGGATATTCGTCGTGGCAACGTGGCCTCCGACTCCAAGAACGATCCCGCCAAGGAAGCCGCCTCTTTCAACGCACAGGTCATCGTCCTCAACCACCCCGGTCAAATTGGTGCTGGTTACGCCCCGGTTCTCGACTGTCACACCGCTCACATCGCCTGCAAGTTCGCCGAGCTCATTGAGAAGATCGATCGTCGTACGGGTAAATCCATTGAAAACTCGCCTAAATTCGTCAAGTCTGGTGACGCCTGCATCGTCAAGCTCGTTCCCAGCAAGCCTATG

>GMM7733\_Laccaria\_trichodermophora\_USA\_TX\_KM067870JX504157\_JX504230\_KU686013\_

CCTGA-TGTGACTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCATCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGAAA-CTCGGATT----TTAG-GATCGCCGTGC---TGT---ACAAGTCGGCTTTTCTTTCATTTCC-AAGAYTATGTTTT----T--A-TATACA-CCAAAGTATGTTTATAGAATGTTATC-AATGGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAAC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----C---ACTGAGGTCGGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT---GAAGTT-CTGCTTCT-AACCGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATATGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC------TTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCACATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTATTTGGGTGAAAAACCCGAGTGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGCATGCTTTTCCGAAAGTTGACCAAGGACGTTTATCGTTATCTACAAAAGgttgctgactttcRctcaagtgcc-----atgagacgtRttga-cctctct---tcttcagTGCGTCGAGACCCACAAGGAGTTCAACCTTGCCCTTGCAGTTAAGCATCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGGGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACATCTYCGTCGGTGTAACACTCCTCTGGGGCGCGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACCCATTGGGGTATGGTGTGCCCYGCGGAAACTCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCCCTTATGGCGTGCATATCAGTCGGGTCTTACTCCGCGCCCGTTATCGAGTTTTTGGAGGAATGGGGATTGGARTCATTGGAAGAGAACGCRCACTCATCAACTCCCTGCACMAAAGTTTTCGTGAACGGTGTATGGATGGGTGTGCATCGCGATCCTGCCAACTTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGACGACATTAGCCCWGAAGTGTCAGTTGTGCGAGACATCCGAGAGAAGGARTTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTTTTCATCGTCGAGAACCAACAGYTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGCGACGARTACAAATGGGAACATTTGGTAAAGGGTGGCATCATYGAGTTACTGGATGCTGAGGAAGAGGAAACGGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAACAAAGTGGCGTTGATCCTCACGCGAACGACGGCGAGTTTGATCCAGCRGCTCGATTAAAGGCTGGCACTCACGCRCACACATGGACACATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGTGCCAGCATTATTCCTTTCCCCGATCAT------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>HKAS41483\_Laccaria\_angustilamella\_TYPE\_CHINA\_\_JX504233\_\_

-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------AAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGRGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGYAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGARAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCYTGGCTTACTTTCTGGTYRATGGG-TCAGCATCAATTTTGRCYGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATAYAYYRGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCRTAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGAYCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGT-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>HKAS44062\_Laccaria\_bicolor\_CHINA\_JX504159\_JX504235\_KU686068\_

-CTGA-TGTGATTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CTGTCATTTTT-ATCTTT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGAAA-CTCGGATT----TTAG-GATCGCTGTGC---TGT---ACAAGTCGGCTTTTCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTATAGAATGTCATC-AATGGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAAC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCGGGCTTC-AA-----T---AATGAGGTCGGCTCTCCTTAAATGCATTAGTGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT---GAAGTT-CTGCTTCT-AACCGTCC---ATTGACTTGGACAA----TTTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATATGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACCGGTGG-AAAAAGTTCAAAGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCACATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTATTTGGGTGAAAAACCCGAGTGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGCATGCTTTTTCGAAAGTTGACCAAGGACGTTTATCGTTATCTACAAAAGGTCGCTGACTTTCGCTTAAGTGCC-----ATGAGACGTATTGA-CCTCTCT---TCTTCAGTGCGTCGAGACCCATAAGGAGTTCAACCTTGCCCTTGCAGTTAAGCATCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGGGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGGCGCGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACCAATTGGGGAATGGTCTGCCC----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>HKAS45998\_Laccaria\_acanthospora\_CHINA\_TIBET\_KU685719\_KU685870\_KU686069\_

TCTGA-TGTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGC-CTGTCATCTTT-ATCTCT--CCA-CCTGTGCACCTTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TTGG-GATCGC------------------GTCAGCTTTCCTTGCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGAATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--TAAAAAYTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCTGGCTKC-AC-----T---TATGAGGTCAGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT---GAAGTT-CAGCTTCT-AACAGTCC---ATTGACTTGGACAA----TTTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGCATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATATGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----ATTTTT---GCTTGGCTTATTTCCTGTTTGACGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATCGGTTGGGATTGAGGAACTCAGCACGCCGAAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGGAAAACTCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCATGGGGAGCATCGACGCCCGGATCTGACCTTTTGTGACGATTCCGCGGTAGAGCATGTTTTTCGCATGCTTTTCCGAAAGTTGACCAAGGACGTTTATCGTTATCTTCAAAAGGTTGCTGAGCTTCGCTCAAGTTCC-----ATGAGATGTGCTGA-CCCCTCT---TCTTCAGTGCGTCGAGACCCACAAGGAGTTCAACCTTGCCCTTGCAGTTAAGCATCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGGGACCAGAAGAAGTCAATGTCTTCCAAGGCGGGAGTATCCCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACACCTTCGTCGGTGTAACACTCCTCTAGGGCGCGAAGGCAAGATTGCCAAACCTCGTCAGTTACACAACACTAATTGGGGAATGGTCTGCCC----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>HKAS57950\_Laccaria\_alba\_CHINA\_TIBET\_JX504166\_JX504242\_\_

CCTGA-TGTGACTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCATCATCTTTAATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTGTCGAGGCAA-CTCGGATT---TTTAG-GATCGCCGTGC---TGT---ACAAGTCGGCTTTTCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATT-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAAC--------T-TTTATTAGCTTGG--ATAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----C---AATGAGGTCAGCTCTTCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GAGAAACAG-CTTTAT---CAAGTT-CAGCTTCT-AACCGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGGGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGT-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>HMAS\_264310\_Laccaria\_yunnanensis\_CHINA\_KX496978\_\_\_

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGC-CCATCATCTTT-ATCTCT--CCA-CCTGTGCACCTTTTGTAGTC-TT-GAATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATTGCCGTGC-TTTATACACAAAGTCGGCTTTTCTTTCATTTTC-AAGACTATGTTTT--TCT--A-TACACA-CCAAAGTATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--T-AAAACTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAACCTTTCCAGC--------T-TTTATTAGTTTGG--TCAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTT------------CATTTACTCTGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACACCGTGGAT-GTAAAGCAGTTTTTAT---AAGGTT-CAGCTTCT-AACTGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGA-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>HMAS\_271732\_Laccaria\_aurantia\_CHINA\_KX496971\_\_\_

TCTGA-TGTGACTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCGTCATCTTT-ATATCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TAAG-GATCGC------------------GTTGGCTTTCCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--TAAAAACTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----T---ATTGAGGTCAGCTCTCCTTAAATACATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT---GAAGTT-CAGCTTCT-AATCGTCC---ATTGACTTGGACAA---TTTTATGACAA-TTTGA-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>KH\_07192006\_1\_Laccaria\_JP1\_USA\_IN\_KU685720\_KU685871\_KU686014\_

CCTGA-TGTGACTGTTAGCTGGCTTTCCAAAAGCATGTGCTCGT-CCGTCATCTTTAATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GAATAACTCTCGAGGCAA-CTCGGATT----TTAG-GATCGCC---------------AAGTTGGCTTTCCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATT-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC------TTTTTTTATAAGCTTGG--TTAGGCTTGGA-TGT-GGGAG--TTGCGGGCTTC-AT-----CAATAATGAGGTCGGCTTTCCTTAAATGCATTAGCGGAACTTTTGTGGACCATCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAACAG-CTTTAT---GAAGTT-CAGCTTCA-AACCGTCC---ATTCACTTGGACAA-----TTTTGACAA--TTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCACGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCACATATATCAGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGCATGCTTTTCCGAAAGTTGACGAAGGACGTTTATCGTTACCTACAAAAGGTTGCTGACCTTCGCTCAAGTGCT-----ATGAGATGTGCTGA-CCTCTCT---TCTTCAGTGCGTCGAAACCCACAAGGAGTTCAACCTTGCCCTTGCAGTTAAGCACCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGAGATCAGAAAAAATCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACATCTTCGTCGGTGTAACACCCCCCTAGGGCGCGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACTCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAAYCTCGCTCTTATGGCGTGCATATCAGTCGGGTCTTACTCCGCGCCCGTTATCGAGTTTTTGGAGGAGTGGGGATTGGAGTCATTGGAAGAGAACGCGCACTCATCAACACCTTGCACAAAAGTTTTCGTGAACGGTGTGTGGATGGGTGTGCATCGCGATCCTGCCAACTTGGTGAAGACGATAAAGAAATTGAGAAGAAAAGACGACATTAGTCCAGAAGTGTCAGTTGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACAGACGCTGGACGTGTTTGTCGACCACTCTTCATMGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAATGATGATGGCGATGAGTACAAATGGGAACATCTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCTGAGGAAGAGGAAACAGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCTTACAACAAAGTGGTGTTGATCCTCACGCGAATGACGGCGAGTTTGATCCAGCAGCTCGTTTGAAGGCTGGCACTCACGCGCACACATGGACACATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGTGCCAGCATTATTCCTTTCCCTGATCAT------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>KH\_LA06\_002\_Laccaria\_amethystina\_PORTUGAL\_KU685759\_KU685910\_KU686059\_KU686162

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCGTCATCTTTAATCTCT--CCA-CCTGTGCACATTTTGTAGTCTTT-GGATACSTCTCGAGGCAA-CTCGGATA----TTAG-GATTGCCGTGC---TGT---ACAAGTCGGCTTTTCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACC-CCAAAGTATGTTTAAAGAATGTCATC-AATGGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCGGGCTTC-AT-----C---AATGAGGTCGGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACYGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTAAAGCAG-CTTTAT---AAAGTT-CAGCTTCT-AACCGTCC--TATTGACTTGGACA---------------------AAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCGAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCACATATATCAGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGT----------------------------------------------------------------------------------------------------------------------------------CAAGGAGTTCAACCTTGCCcTTGCAGTTAAGCATCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGAGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAAGTCTTGAACAGATACACATATGCATCGACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGGCGCGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACTCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCTTGTGGTCTTGTCAAGAACCTCGCCCTTATGGCGTGCATATCAGTCGGGTCTTACTCTGCGCCCGTTATCGAGTTTTTGGAGGAGTGGGGATTGGAGTCATTGGAAGAGAACGCGCACTCATCAACACCTTGCACAAAAGTTTTCGTGAACGGTGTCTGGATGGGTGTGCATCGCGATCCTGCCAATTTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGACGAcATTAGCCCAGAAGTGTCAGTTGTGAGAGACATcAGGGAGAAGGAATTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCAYGTCAAATGGCTCAGTAAYGGCCTCAACGATGATGGCGACGAGTACAAATGGGAACATCTRGTAAAGGGTGGCATCATTGAGTTACTGGATGCTGAGGAAGAAGAAACAGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGTGTTGATCCTCACGCGAACGACGGCGARTTTGATCCAGCAGCTCGAYTGAAGGCTGGCACTCACGCACACACATGGACACATTGCGAAATTCATCCCAGCATGATTCTTGGCATTTGYGCCAGCATCATTCCTTTCCCTGATCAT----------------------------------------------------------------------CGCGAGCACGCTCTCCTCGCTTTCACCCTCGGTGTGCGGCAACTCATCGTTGCCGTCAACAAGATGGACACCACTA-----------------------------------------------------------AGTGGAGCGAGCACCGTTTCAACGAAATCATCAAGGAGACGTCAACCTTGATCAAGAAAGTTGGTTACAACCCCAAAGCCGTTCCCTTTGTCCCTATTTCCGGCTGGCACGGTGACAACATGTCGGAGGAGTCGTCY------------------------------------------------------AATATGCCTTGGTACAAGGGCTGGACCAAGCAGACCAAGGCTGGTGTCGTCAAGGGCAAGACTCTCCTCGATGCTATTGATGCCATTGAACCCCCCGTCCGACCTTCCGACAAACCTCTCCGTCTTCCCCTCCAGGATGTCTACAAAGTTAGCGGTATTGGAACTGTGCCCGTCGGTCGTGTTCAGACTGGTATCATCAAGGCCGGAATGGTCGTCACTTTCGCTCCTTCCAACGTCACCACTGAAGTCAAGTCCGTCGAAATCAATCACGAACAGCTCGAGCAGGGTAATCCTGGTGACAYTGTCCGTTTCCCCGTCAAGAACGTGTCRGTGAAGGATATTCGTCGTGGCAACGTGGCCTCCGACTCCAAGAACGATCCCGCCAAGGAAGCGGCCTCTTTCAACGCACAGGTCATCGTCATCAACCACCCTGGTAAAATTGGTGCTGGTTACACCCCGGTTCTTGACTGTCACACCGCCCACATCGCCTGCAAGTTTGCCGAGCTCATCGAGAAGATTGATCGTCGTACGGGTAAATCCATTGAAAACTCGCCTAAATTCATAAAGTCGGGTGACGCTTGCATCGTCAAGCTCGTTCCCAGCAAGTCTATG

>KU962988\_Laccaria\_japonica\_TYPE\_\_KU962988\_\_\_

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCGTCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATCGCCG------------------TGGCTTTCCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTTATC-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGCTTTTTTTTT-TTTATTAGCTTGG--TTTGGCTTGGA-TGT-GGGTG--TTGCAGGCTTC-AT-----T---AATGAGGTCAGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTATAT-ATGAAGTT-CAGCTTCT-AACTGTCC---ATTGACTTGGACAA----TTTTTGACAA-TTTGA-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>KU962989\_Laccaria\_moshuijun\_TYPE\_\_KU962989\_\_\_

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCGTCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCCA-CTCGGATT----TTAG-GATCGCTGTGC---TGT---ACAAGTCGGCTTTCCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTTATC-AATAGGAAC---TTGTTTCCTA--T-AAAACTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAACCCTTCCAGC---CTTTTT-TTTATTGGCTTGG--TTTGGCTTGGA-TGT-GGGTG--TTGCAGGCTTC-AA-----T---AATGAGGTCAGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT-ATGAAGTT-CAGCTTCT-AACCGTCC---ATTGACTTGGACAA----TTTTTGACAA-TTTGA-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>LaAM/08/1\_Laccaria\_amethystina\_JGI Genome\_ITS\_28S\_RPB2\_EF1a

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCGTCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATCGCTGTGC---TGT---ACAAGTCGGCTTTCCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--T-ATAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC-------TT-TTTATAAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGTGGGCTTC-AT-----T---AATGAGGTCAGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-TTTTAT---GAAGTT-CAGCTTCT-AACCGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGGGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACCGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGTAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTAGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGCATGCTTTTCCGAAAGCTGTCCAAGGACGTTTATCGTTATCTACAAAAGGTTGCTGACCTTCGTTTAAGTGCC-----ATGAGATGTGCTGA-CGCCTAA---TCTTCAGTGTGTCGAGACCCACAAAGAGTTCAACCTTGCCCTTGCAGTTAAGCATCAAACCATCACAAACGGTCTCAAATACTCTCTGGCGACAGGTAACTGGGGAGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCGTCCACTCTGTCACATCTTCGTCGGTGTAACACTCCTTTAGGGCGCGAAGGCAAGATCGCCAAACCTCGTCAGCTGCACAACACTCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCCCTTATGGCGTGCATATCAGTCGGGTCTTACTCTGCGCCTGTTATCGAGTTTTTGGAGGAGTGGGGATTGGAGTCATTGGAAGAGAACGCACACTCATCGACACCTTGCACAAAAGTTTTCGTGAACGGTGTCTGGATGGGTGTGCATCGCGATCCTGCCAATTTGGTCAAGACGATAAAGAAACTGAGAAGGAAAGATGACATCAGCCCAGAAGTGTCAGTTGTGCGAGACATTAGGGAGAAGGAACTCAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACATCAAATGGCTCAGTAACGGCCTCAACGATGATGGCGACGAGTACAAATGGGAACATCTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCTGAGGAAGAGGAAACGGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGTGTTGACCCCCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCACGCACACACATGGACTCATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGTGCCAGCATTATTCCTTTCCCTGATCATCTGCGCCATTCTCATCATTGCTGGTGGTACTGGTGAGTTCGAGGCTGGTATCTCCAAGGATGGCCAGACCCGCGAGCACGCTCTCCTCGCTTTCACCCTCGGTGTGCGGCAACTCATCGTGGCCGTCAACAAGATGGACACCACCAAGGTAAGAAACGTTTGAC-TTATAGTTAGGCTTCTTTCACATTTACATCATCTCAT-GTAGTGGAGCGAGGACCGTTTCAACGAAATCATCAAGGAGACGTCGACCTTCATCAAGAAGGTTGGTTACAACCCCAAGGCCGTTGCCTTTGTCCCTATTTCCGGCTGGCACGGTGACAACATGTTGGAGGAGTCCGCTAAGTGAGCATTC--TCGTATCGTTATGGTCGCCCCGTCGCTCATGTTACATTC-AGCATGCCTTGGTACAAGGGCTGGACCAGGGAGACCAAGGCTGGTCCCGTCAAGGGCAAGACCCTCCTCGATGCTATTGATGCCATTGAGCCCCCCGTCCGACCTTCCGACAAACCCCTCCGTCTCCCCCTCCAGGATGTCTACAAAATTGGCGGTATTGGAACTGTGCCCGTCGGTCGTGTTGAGACTGGTATCATCAAGGCCGGAATGGTCGTCACTTTCGCGCCCTCCAACGTCACCACTGAAGTTAAGTCCGTCGAAATGCATCACGAACAGCTCGAGCAGGGTAACCCTGGTGACAATGTCGGTTTCAACGTCAAGAACGTGTCAGTGAAGGATATTCGTCGTGGCAACGTGGCCTccgactccaagaacgatccggccaaggaagcggcctctttcaacgcacaggtcatcgtcctcaaccaccctggtcaaattggtgctggttacgccccagttctcgactgtcacaccgccCACATCGCCTGCAAGTTCGCCGAGCTTATCGAGAAGATCGATCGTCGTACGGGTAAATCTATTGAAAATTCGCCTAAATTCGTCAAATCGGGTGACGCCTGCATCGTCAAGCTCGTTCCCAGCAAGCCTATG

>MB\_FB\_001101\_Laccaria\_fulvogrisea\_CHINA\_JQ670896\_\_\_

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGC-CCATCATCTTT-ATATCT--CCA-CCTGTGCACCTTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATCGCCATCT---------------TGGCTTTCCTTGCATTTCC-AAGACTATGTTTT----T--A-TACACA-CCAAAGTATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--TAAAAACTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AC-----T---TATGAGGTCAGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT---AAAGTT-CAGCTTCT-AACAGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGA-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>MB\_FB\_001107\_Laccaria\_yunnanensis\_CHINA\_JQ670897\_\_\_

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGC-CCATCATCTTT-ATCTCT--CCA-CCTGTGCACCTTTTGTAGTC-TT-GAATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATTGCCGTGC-TTTATACACAAAGTCGGCTTTTCTTTCATTTTC-AAGACTATGTTTT--TCT--A-TACACA-CCAAAGTATGTTTAAAGAATGTCATC-AGTAGGAAC---TTGTTTCCTA--T-AAAACTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAACCTTTCCAGC--------T-TTTATTAGTTTGG--TCAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTT------------CATTTACTCTGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACACCGTGGAT-GTAAAGCAGTTTTTAT---AAGGTT-CAGCTTCT-AACTGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGA-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>MB\_FB\_001109\_Laccaria\_aurantia\_CHINA\_JQ681209\_\_\_

WCTGA-TGTGRCTGTTAGCTGGC-TTTTCRAAGCATGTGCTCGT-CCGTCATCTTT-ATATCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TAAG-GATCGC------------------GTTGGCTTTCCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--TAAAAACTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATWGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----T---ATTGAGGTCAGCTCTCCTTAAATACATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT---GAAGTT-CAGCTTCT-AATCGTCC---ATTGAWTTGGACAA---TTTTATGACAA-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>MB\_FB\_001110\_Laccaria\_fulvogrisea\_CHINA\_JQ681210\_\_\_

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGC-CCGTCATCTTT-ATACCT--CCA-CCTGTGCACCTTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATCGCCATGC---------------TGGCTTTCCTTGCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATC-AATAGGGAC---TTGTTTCCTA--TAAAAACTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AC-----T---TATGAGGTCAGCTCTCCTTAAATGCATTAGTGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT---AAAGTT-CAGCTTCT-AACAGTCC---ATTGACTTGGACAA----TTTTTGACAA-TTTGA-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>PRL3777\_Laccaria\_ochropurpurea\_USA\_IL\_KU685732\_JX504246\_KU686024\_

CCTGA-TGTGGCTGTTAGCTGGC-TTTTTGAAGCATGTGCTCGT-CCGTCGTCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT--TTTAGG-GATCGCCGTGC---TGT---ACAAGTCGGCTTTCTTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATA-AAAAGGAAC---TTGATTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGGTTTTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----T---AATGAGGTTAGCTCTCCTTAAATGCATTAGCAGAACTTTTGTGGACTGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-ATTTAT---GAAGTT-CAGCTTCT-AACTGTCC---ATTGACTTGGACAA-----TTTTGACAA--TTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGGGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGT------------------------------GGATGTTTATCGTTATCTACAAAAGGTTGCTGACCTTCGCTCAAGTGCC-----ATGAGATGTGCTGA-CCCCTCT---TCTTCAGTGCGTTGAGACCCACAAGGARTTCAACCTTGCCCTTGCAGTTAAGCATCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGAGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGGCGCGAAGGCAAGATCGCCAAACCCCGTCAGTTGCACAACACTCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCCCTTATGGCATGCATATCAGTCGGGTCTTACTCCGCGCCCGTTATCGAGTTTTTGGAGGARTGGGGAYTGGAGTCATTGGAAGAGAACGCACATTCATCGACACCTTGCACAAAAGTTTTCGTGAACGGTGTCTGGATGGGTGTGCATCGCGATCCTGCCAATTTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGACGACATCAGCCCAGAAGTGTCAGTTGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACTGATGCTGGACGTGTTTGTCGACCACTCTTCATTGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGCGACGAGTACAAATGGGAACATCTGGTAAAGGGTGGCATCATCGAGTTGCTGGATGCTGAGGAAGAGGAAACGGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGTGTTGATCCTCATGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCACGCACACACATGGACACATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGTG--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>PRL4777\_Laccaria\_ochropurpurea\_USA\_IL\_KU685733\_KU685883\_KU686025\_

CCTGA-TGTGGCTGTTAGCTGGC-TTTTTGAAGCATGTGCTCGT-CCGTCGTCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT--TTTAGG-GATCGCCGTGC---TGT---ACAAGTCGGCTTTCTTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATA-AAAAGGAAC---TTGATTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGGTTTTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----T---AATGAGGTTAGCTCTCCTTAAATGCATTAGCAGAACTTTTGTGGACTGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-ATTTAT---GAAGTT-CAGCTTCT-AACTGTCC---ATTGACTTGGACAA-----TTTTGACAA--TTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGGGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGT-------------------------------------------TATCTACAAAAGGTTGCTGACCTTCGCTCAAGTGCC-----aTGGAATGTGCTGA-CCCCTCT---TCTTCAGTGCGTTGAGACCCACAAGGAGTTCAACCTGGCCCTTGCAGTTAAGCATCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGAGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTGTCTCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGGCGCGAAGGCAAGATCGCCAAACCCCGTCAGTTGCACAACACTCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCCCTTATGGCATGCATATCAGTCGGGTCTTACTCCGCGCCTGTTATCGAGTTTTTGGAGGAATGGGGATTGGAGTCATTGGAAGAGAACGCACATTCATCGACACCTTGCACAAAAGTTTTCGTGAACGGTGTCTGGATGGGTGTGCATCGCGATCCTGCCAATTTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGACGACATCAGCCCAGAAGTGTCAGTTGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACTGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGCGACGAGTACAAATGGGAACATCTGGTAAAGGGTGGCATCATYGAGTTRCTGGATGCTGAGGAAGAGGAAACGGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGTGTTGATCCTCATGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCACGCACACACATGGACACATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGT---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>S238N\_Laccaria \_bicolor\_USA\_OR\_DQ179123\_\_XM001873347\_XM001873347

CCTGA-TGTGATTGTTAGCTGGC-TTTTCGAAGCATGTGCTCAT-CCGTCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGAAA-CTCGGATT----TTAG-AATCGCTGTGC---TGT---ACAAGTCGGCTTTTCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTATAGAATGTCATC-AATGGGAAC---TTGTTTCCTA--T-AAAATTATACAACCTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAAC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCGGGCTTC-AT-----T---AATGAGGTCGGCTCTCCTTAAATGCATTAGCGGAACTTTTGT-GACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT---GAAGTTCCTGCTTCT-AACCGTCC---ATTGACTTGGACAA-----TTTTGATAA--TTGA--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------TTTCCGCATGCTTTTCCGAAAGTTGACCAAGGACGTTTATCGTTATCTACAAAA-------------------------------------------------------------GTGCGTCGAGACCCATAAGGAGTTCAACCTTGCCCTTGCAGTTAAGCATCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGGGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGGCGCGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACCCATTGGGGTATGGTGTGCCCTGCGGAAACCCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCCCTTATGGCGTGCATATCAGTCGGGTCTTACTCCGCGCCCGTTATCGAGTTTTTGGAGGAATGGGGATTGGAGTCATTGGAAGAGAACGCGCACTCATCAACTCCCTGCACAAAAGTTTTCGTGAACGGTGTATGGATGGGTGTGCATCGCGATCCTGCCAACTTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGACGACATTAGCCCTGAAGTGTCAGTTGTGCGAGACATCCGAGAGAAGGAATTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTTTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGCGACGAATACAAATGGGAACATCTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCTGAGGAAGAGGAAACGGTGATGATATCCATGACTCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGCGTTGATCTTCACGCGAACGACGGCGAGTTTGATCCAGCAGCCCGATTAAAGGCTGGCACTCACGCACACACATGGACACATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGTGCCAGCATTATTCCTTTCCCCGATCATCTGCGCCATTCTCATCATTGCTGGTGGTACTGGTGAGTTTGAGGCTGGTATCTCCAAGGATGGCCAGACCCGCGAGCACGCTCTCCTCGCTTTCACCCTCGGTGTGCGGCAACTCATCGTTGCCGTCAACAAGATGGACACCACCA-----------------------------------------------------------AGTGGAGCGAGGACCGTTTCAACGAAATTATCAAGGAGACGTCAAGCTTCATCAAGAAGGTTGGTTACAACCCCAAGGCCGTTGCCTTTGTTCCTATTTCCGGCTGGCACGGTGACAACATGTTGGAGGAGTCCCCT------------------------------------------------------AACATGCCTTGGTTCAAGGGCTGGACCAAGGAGACCAAGGCTGGTGTCGTCAAGGGCAAGACCCTCCTCGATGCTATTGATGCCATTGAGCCCCCCGTCCGACCTTCCGACAAGCCCCTCCGTCTTCCCCTCCAGGACGTCTACAAAATTGGCGGTATCGGAACTGTGCCCGTCGGTCGTGTTGAGACTGGTATCATCAAGGCCGGAATGGTCGTCAATTTCGCTCCCTCCAACGTCACCACTGAAGTCAAGTCCGTCGAAATGCATCACGAACAGCTCGAGCAGGGTAACCCCGGTGACAATGTCGGTTTCAACGTCAAGAACGTGTCAGTGAAGGATATTCGTCGTGGCAACGTGGCCTCCGACTCCAAGAACGATCCCGCCAAGGAAGCGGCCTCTTTCAACGCACAGGTCATCGTCCTCAACCACCCTGGTCAAATTGGTGCTGGTTATGCCCCGGTTCTCGACTGTCACACCGCCCACATTGCCTGCAAGTTCGCCGAGCTCATCGAGAAGATCGATCGTCGTACGGGTAAATCCATTGAAAACTCACCCAAATTCGTCAAGTCGGGTGACGCCTGCATCGTCAAGCTCGTTCCCAGCAAGCCTATG

>MS\_13\_Laccaria\_rubroalba\_CHINA\_KX449360\_\_\_

TCTGA-TGTGGCTGTTAGCTGGCTTTTTTGAAGCATGTGCTCGT-CCGTCATCTTT-ATATCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TAAG-GATC------------------GTGTTGGCTTTCCTTTCACTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--TAAAAACTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----T---ATTGAGGTCAGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT---AAAGTT-CAGCTTCT-AACCGTCC---ATTGACTTGGACAA---TTTTATGACAA-TTTGA-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>MS\_28\_Laccaria\_rubroalba\_CHINA\_KX449359\_\_\_

TCTGA-TGTGGCTGTTAGCTGGCTTTTTTGAAGCATGTGCTCGT-CCGTCATCTTT-ATATCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TAAG-GATC------------------GTGTTGGCTTTCCTTTCACTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--TAAAAACTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----T---ATTGAGGTCAGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT---AAAGTT-CAGCTTCT-AACCGTCC---ATTGACTTGGACAA---TTTTATGACAA-TTTGA-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>MS\_15\_Laccaria\_rubroalba\_CHINA\_KX449358\_\_\_

TCTGA-TGTGGCTGTTAGCTGGCTTTTTTGAAGCATGTGCTCGT-CCGTCATCTTT-ATATCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TAAG-GATC------------------GTGTTGGCTTTCCTTTCACTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--TAAAAACTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----T---ATTGAGGTCAGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT---AAAGTT-CAGCTTCT-AACCGTCC---ATTGACTTGGACAA---TTTTATGACAA-TTTGA-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>MS\_20\_Laccaria\_rubroalba\_CHINA\_KX449357\_\_\_

TCTGA-TGTGGCTGTTAGCTGGCTTTTTTGAAGCATGTGCTCGT-CCGTCATCTTT-ATATCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TAAG-GATC------------------GTGTTGGCTTTCCTTTCACTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--TAAAAACTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----T---ATTGAGGTCAGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT---AAAGTT-CAGCTTCT-AACCGTCC---ATTGACTTGGACAA---TTTTATGACAA-TTTGA-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>DED7419\_Laccaria\_THAI2\_THAILAND\_KX513839KX513840\_KU685770\_KU685925\_KU686075

-CTGA-TGCGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCWCGT-CCATCATCTTT-ATATCT--CCA-CCTGTGCACCTTTTGTAGTC-TT-GAATACCTCTCGAGGCAA-CTCGGATT----TTAG-AATTGCCGTGC---TGT---ACAAGTCGGCTTTTCTATCATTTTC-AAGATTATGTTTT--CTT--A-TACACA-CCAAAGTATGTTTAAAGAATGTCATC-AATAGGAAC---------------T-----------------------------------------------------------------------------------------------------------TTTTTNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN---------NNNNNNNNN-------------------------NNNNNNNNNNNNNNT--------TTGCAGGCTTC------------ATTGAGATCTGCTCTCCTTAAATGCATTAGTGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACACCGTGGAT-GTAAAGCAG-TTTTAT---AAAGTT-CAGCTTCT-AACCGTCC---TTTGACTTGGACAA-----TTTTGACAA--TTGAAAGCTCAAATTTAAAATCTGACAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGCATTATCCGCGTTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTACCAGGGCTTTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGTGATCAA-CCTTGC----TTTTTT---GCTTGGCTTATTTTCTGGCCAATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CCTTGGATGTGTTATAACCTTTGTTCGCATACATCAGTTGGGATTGAGGAACTCAGCACGCCGAAAGGCCGGG-TTTTTTAAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTTGGTGGAAAACCAGAGCGCATAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATCGACGCCCAGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCcGcATGCTTTTCCGAAAGTTGACCAAGGACGTTTATcGTtATTTACAAAAGGTTGCTGAGCTTCGCTGAAGTGCC-----ATAAGATGTGCTGA-CTTWGCT---TCTTCAGTGCGTCGAGACCCACAAGGAGTTTAATCTTGCTCTTGCAGTGAAGCACCAAACCATCACAAACGGCCTCAAATACTCTCTGGCAACAGGTAACTGGGGAGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGGGTATCTCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGACGCGAGGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACTAATTGGGGTATGGTGTGTCCTGCGGAAACGCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCTCTTATGGCGTGCATATCAGTCGGGTCTTATTCCGCACCCGTTATCGAGTTTTTGGAAGAGTGGGGATTGGAGTCATTAGAAGAAAACGCGCACTCATCGACACCTTGCACGAAAGTTTTTGTGAACGGTGTCTGGATGGGTGTGCATCGCGATCCTGCCAACTTGGTAAAGACGATAAAGAAATTGAGAAGGAAGGACGACATCAGCCCAGAAGTGTCAGTTGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACTGATGCTGGACGTGTTTGTCGGCCACTCTTCATCGTCGAGAATCAACAGCTGGCACTTCAGAAGAAGCACGTCAAGTGGCTCAGCAGCGGCCTCAATGATGATGGCGACGAGTATAAATGGGAACATCTGGTAAAGGGTGGTATCATTGAGTTACTGGATGCTGAGGAAGAGGAAACAGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGCGTTGATCCTCACGCAAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCACGCACACACATGGACACATTGCGAGATTCATCCTAGCATGATTCTTGGCATCTGTGCTAGCATGATTCCTTTCCCT----------------------------------------------------------------------------CGCGAGCACGCCCTCCTCGCTTTCACGCTTGGTGTGCGGCAACTCATCGTTGCTGTCAACAAGATGGACACCACTAAGGTAAGAAATGTTTCAC-TTGTAGCYAGCCTTTTTGCACATTTTGATCATCTCA-AATAGTGGAGCGAGGACCGTTTCAACGAAATCATCAAGGAGACGTCAACCTTCATCAAGAAGGTTGGTTACAACCCCAAGGCCGTTGCCTTTGTCCCTATCTCCGGTTGGCACGGTGACAACATGTTGGAGGAATCCACCAAGTAAGCATTT--CCATATCACCATGATCGCCCTGTCGCTCATGTCACACTC-AGCATGCCTTGGTACAAGGGCTGGACCAAGGAGACCAAGGCTGGCGTCGTCAAGGGCAAGACACTYCTCGATGCTATTGATGCCATTGAGCCCCCCGTTCGACCTTCCGACAAGCCCCTCCGCCTTCCCCTCCAGGATGTCTACAAAATTGGCGGTATTGGAACTGTACCTGTCGGTCGTGTTGAGACTGGTATCATCAAAGCGGGAATGGTTGTCACTTTCGCTCCCTCCAACGTCACSACTGAAGTCAAGTCTGTTGAAATGCATCACGAACAACTCGAGCAGGGTAACCCTGGTGACAATGTCGGTTTCAACGTCAAGAACGTGTCAGTGAAGGATATTCGTCGTGGCAACGTGGCCTCCGACTCTAAGAACGATCCCGCCAAGGAAGCGGCCTCTTTCAATGCACAGGTCATCGTCCTCAACCACCCTGGTCAAATTGGTGCTGGTTACGCCCCAGTTCTCGACTGTCACACCGCCCACATCGCCTGCAAGTTCGCTGAGCTCATCGAGAAGATCGATCGTCGTACGGGTAAATCCATTGAAAACAACCCCAAATTCGTCAAGTCGGGTGATGCCTGCATCGTCAAGCTCGTTCCCAGCAAGCCTATG

>DED7426\_Laccaria\_THAI1\_THAILAND\_KU685628\_KU685771\_KU685926\_KU686076

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGC-CCATCATCTTT-ACATTT--CCA-CCTGTGCACCTTTTGTAGTC-TT-GAATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATTGCCGTGC---TGT---ACAAGTCGGCTTTTCTATCATTTTCAAAGACTATGTTTT---CT--A-TACACA-CCAAAGTATGTTTAAAGAATGGCATCAAATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATTTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAACCTTTCCAGC--------T-TTTATTAGTTTGG--TCAGGCTTGGA-TGT-GGGGGTTTTGCAGGCTTT------------TATAAGATCTGCTCTCCTTAAATGCATTAGTGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACACCGTGGAT-GTAAAGCAG--------------TT-------------------------------------------------------AAGCTCAAATTTAAAATCTGACAGT-CTTTGGCTGT-CTGAGTTGTAATCTAGAGAAGCATTATCCGCGTTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGCTTTTGTGATATGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCACGTTGGCCAGTRATCAA-CCTTGC----TTTTTT---GCTTGGCTTATTTTCTGGTCAATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CCTTGGATGTGTTATAGCCTTTGTTCACATACATCAGTTGGGATTGAGGAACTCAGCACGCCGAAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTTGGTGAAAAACCAGAGCGCATAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCAGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGCATGCTTTTCCGAAAGTTGACCAAGGACGTTTATCGTTATCTACAAAAGGTTGCTGAGCTTTGTCCAACTCCc-----ATGAGATATGCTGA-CCCCTCT---TCTTCAGTGCGTCGAGACCCACAAGGAGTTCAATCTTGCTCTTGCAGTGAAGCACCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGAGATCAGAAAAAGTCAATGTCTTCTAAGGCAGGGGTATCTCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACACCTTCGTCGGTGTAACACTCCTCTAGGACGTGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAATACTCATTGGGGTATGGTGTGTCCTGCGGAAACACCTGAAGGTCAAGCTTGCGGTCTTGTCAAGAACCTCGCTCTTATGGCGTGCATATCAGTCGGGTCTTACTCCGCACCCGTTATTGAGTTTTTGGAGGAGTGGGGATTGGAGTCATTGGAAGAGAACGCGCACTCATCGACACCTTGCACAAAAGTTTTCGTGAACGGTGTCTGGATGGGTGTGCACCGCGATCCTGCCAACTTGGTCAAGACGATAAAGAAATTGAGAAGGAAAGATGACATCAGTCCAGAAGTGTCAGTTGTGCGAGATATCAGGGAGAAGGAATTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGCAACGGCCTCAATGATGATGGCGACGAGTATAAATGGGAACATCTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCGGAGGAAGAGGAAACAGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGTGTTGATCCTCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCACGCGCACACATGGACACATTGCGAGATTCATCCTAGCATGATTCTTGGCATTTGTGCCAGCATTATTCCTTTCCCTGATCAT----------------------------------------------------------------------CGCGAGCACGCCCTTCTCGCTTTCACGCTCGGTGTGCGGCAACTCATTGTTGCTGTCAACAAGATGGACACCACTAAGGTAAGAAAAGTTTCAG-TTATAGTCAGGCTTTTTGCATATTCTCATCATCTCA-AATAGTGGAGCGAGGACCGTTTCAATGAAATCATCAAGGAGACGTCAACTTTCATCAAGAAGGTCGGTTACAACCCCAAGGCCGTTGCCTTTGTCCCTATTTCCGGTTGGCACGGTGACAACATGTTGGAGGAATCCACCAAGTAAGAATTC--TCATATCGCCATAATCACCCCATCGCTCATATTACACTC-AGCATGCCTTGGTACAAGGGCTGGACAAAGGAGACCAAGGCTGGCGTCGTCAAGGGCAAGACTCTTCTCGATGCTATTGATGCCATTGAGCCCCCCGTTCGACCTTCCGACAAGCCCCTCCGTCTTCCCCTCCAGGATGTCTACAAAATTGGTGGTATTGGAACCGTTCCTGTCGGCCGTGTTGAGACTGGTATCATCAAAGCGGGAATGGTTGTCACTTTCGCTCCCTCCAACGTCACCACTGAAGTCAAGTCTGTTGAAATGCATCACGAACAACTCGAGCAAGGTAACCCTGGTGACAATGTCGGTTTCAACGTCAAGAACGTGTCAGTGAAGGATATTCGTCGTGGTAACGTGGCCTCCGACTCCAAGAACGATCCCGCCAAGGAAGCGGCCTCTTTCAATGCACAGGTCATCGTCCTCAACCACCCTGGTCAAATTGGTGCTGGTTACGCCCCAGTTCTCGACTGTCACACCGCCCACATCGCCTGCAAGTTCGCTGAGCTCATCGAGAAGATCGATCGTCGTACGGGTAAATCCATTGAAAATAACCCCAAATTCGTCAAGTCGGGTGATGCCTGCATCGTCAAGCTCGTTCCCAGCAAGCCTATG

>DED7435\_Laccaria\_THAI2\_THAILAND\_KX513841\_KU685772\_KU686060\_ef1a

CCTGCATGCGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCATCATCTTT-ATATCT--CCA-CCTGTGCACCTTTTGTAGTC-TT-GAATACCTCTCGAGGCAA-CTCGGATT----TTAG-AATTGCCGTGC---TGT---ACAAGTCGGCTTTTCTATCATTTTC-AAGATTATGTTTT--CTT--A-TACACA-CCAAAGTATGTTTAAAGAATGTCATC-AATAGGAAC---------------T----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------T-TTT------------------------TTT----------------TTT--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------AAGCTCAAATTTAAAATCTGACRGT-CTYTGGCTGT-CCGAGTTGTAATCTAGAGAAGCATTATCCGCGTTGGACCGTGTACAAGTCTCCTGGAAYGGAKCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTACCAGGGCTTTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGTGATCAA-CCTTGC----TTTTTT---------------------------------------------------------------------------------------------------------------------------------------------------------TTTTTTTAACCACGTACGTGCTTAGGATGCYGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTTGGTGGAAAACCAGAGCGCATAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATCGACGCCCAGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGCATGCTTTTCCGAAAGTTGACCAAGGACGTTTATCGTTATTTACAAAAGGTTGCTGAGCTTCGCTGAAGTGCC-----ATAAGATGTGCTGA-CTTTGCT---TCTTCAGTGCGTCGAGACCCACAAGGAGTTTAATCTTGCTCTTGCAGTGAAGCACCAAACCATCACAAACGGCCTCAAATACTCTCTGGCAACAGGTAACTGGGGAGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGGGTATCTCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGACGCGAGGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACTCATTGGGG-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------CTCATTATATGCTGGTGGTACTGGTGAATTCGAGGCAGGTATCTCCAAGGATGGCCAGACCCGCGAGCACGCYCTCCTCGCTTTCACGCTTGGTGTGCGGCAACTCATCGTTGCTGTCAACAAGATGGACACCACTAAGGTAAGAAATGTTTCAC-TTRTAGCYAGCCTTTTTGCACATTTTGATCATCTCA-AATAGTGGAGCGAGGACCGTTTCAACGAAATCATCAAGGAGACGTCAACCTTCATCAAGAAGGTTGGTTACAACCCCAAGGCCGTTGCCTTTGTCCCTATCTCCGGTTGGCACGGTGACAACATGTTGGAGGAATCCACCAAGTAAGCATTT--CCATATCACCATGATCGCCCTGTCGCTCATGTTACACTC-AGCATGCCTTGGTACAAGGGCTGGACCAAGGAGACCAAGGCTGGCGTCGTCAAGGGCAAGACACTTCTCGATGCTATTGATGCCATTGAGCCCCCCGTTCGACCTTCCGACAAGCCCCTCCGCCTTCCCCTCCAGGATGTCTACAAAATTGGCGGTATTGGAACTGTACCTGTCGGTCGTGTTGAGACTGGTATCATCAAAGCGGGAATGGTTGTCACGTTCGCTCCCTCCAACGTCACCACTGAAGTCAAGTCTGTTGAAATGCATCACGAACAACTCGAGCAGGGTAACCCTGGTGACAATGTCGGTTTCAACGTCAAGAACGTGTCAGTGAAGGATATTCGTCGTGGCAACGTGGCCTCCGACTCTAAGAACGATCCCGCCAAGGAAGCGGCCTCTTTCAATGCACAGGTCATCGTCCTCAACCACCCTGGTCAAATTGGTGCTGGTTACGCCCCAGTTCTCGACTGTCACACCGCCCACATCGCCTGCAAGTTCGCTGAGCTCATCGAGAAGATCGATCGTCGTACGGGTAAATCCATTGAAAACAACCCCAAATTCGTCAAGTCGGGTGATGCCTGCATCGTCAAGCTCGTTCCCAGCAAGCCTATG

>TWO1166\_Laccaria\_THAI1\_THAILAND\_KU685744\_KU685895\_KU686041\_ef1a

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGC-CCATCATCTTT-ACATTT--CCA-CCTGTGCACCTTTTGTAGTC-TT-GAATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATTGCCGTGC---TGT---ACAAGTCGGCTTTTCTATCATTTTCAAAGACTATGTTTT---CT--A-TACACA-CCAAAGTATGTTTAAAGAATGGCATCAAATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATTTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAACCTTTCCAGC--------T-TTTATTAGTTTGG--TCAGGCTTGGA-TGT-GGGGGTTTTGCAGGCTTT------------TATAAGATCTGCTCTCCTTAAATGCATTAGTGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACACCGTGGAT-GTAAAGCAGTTTTTAT---AAAGTT-CAGCTTCT-AACTGTCC---ATTGACTTGGACAC-----TTTTGACAA--TTGAAAGCTCAAATTTAAAATCTGACAGT-CTTTGGCTGT-CTGAGTTGTAATCTAGAGAAGCATTATCCGCGTTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGCTTTTGTGATATGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCRCATTGGCCAGTGATCAA-CCTTGC----TTTTTT---GCTTGGCTTATTTTCTGGTCAATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CCTTGGATGTGTTATAGCCTTTGTTCACATACATCAGTTGGGATTGAGGAACTCAGCACGCCGAAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTTGGTGAAAAACCAGAGCGCATAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCAGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCcGCATGCtTTTCCGAAAGTTGACcAAgGACGTTTATCGTTATCTACAAAAGGTTGCTGAGCtTTGTCCAACT-CC-----ATGAGATATGCTGA-CCCCTCT---TCTTCAGTGCGTCGAGACCCACAAGGAGTTCAATCtTGCTCTTGCAGTGAAGCACCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGAGATCAGAAAAAGTCAATGTCTTCTAAGGCAGGGGTATCTCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACACCTTCGTCGGTGTAACACTCCTCTAGGACGTGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAATACTCATTGGGGTATGGTGTGTCCTGCGGAAACACCTGAAGGTCAAGCTTGCGGTCTTGTCAAGAACCTCGCTCTTATGGCGTGCATATCAGTCGGGTCTTACTCCGCACCCGTTATTGAGTTTTTGGAGGAGTGGGGATTGGAGTCATTGGAAGAGAACGCGCACTCATCGACACCTTGCACAAAAGTTTTCGTGAACGGTGTCTGGATGGGTGTGCACCGCGATCCTGCCAACTTGGTCAAGACGATAAAGAAATTGAGAAGGAAAGATGACATCAGTCCAGAAGTGTCAGTTGTGCGAGATATCAGGGAGAAGGAATTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGCAACGGCCTCAATGATGATGGCGACGAGTATAAATGGGAACATCTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCGGAGGAAGAGGAAACAGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGTGTTGATCCTCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCACGCGCACACATGGACACATTGCGAGATTCATCCTAGCATGATTCTTGGCATTTGTGCCAGCATTATTCCTTTCCCTGATCAT----------------------------------------------------------------------------------CTTCTCGCTTTCACGCTCGGTGTGCGGCAACTCATCGTCGCTGTCAACAAGATGGACACCACTAAGGTAAGAAACGTTTCAG-TTATAGTCAGGCTTTTTGCATATTCTCATCATCTCA-AATAGTGGAGTGAGGACCGTTTCAATGAAATCATCAAGGAGACGTCAACTTTCATCAAGAAGGTCGGTTACAACCCCAAGGCCGTTGCCTTTGTCCCTATTTCCGGTTGGCACGGTGACAACATGTTGGAGGAATCCACCAAGTAAGCATTC--TCATATCGCCATAATCACCC-ATCGTTCATATTACACTC-AGCATGCCTTGGTACAAGGGCTGGACAAAGGAGACTAAGGCTGGCGTCGTCAAGGGAAAGACCCTCCTCGATGCTATTGATGCCATTGAGCCCCCCGTTCGACCTTCCGACAAGCCCCTCCGTCTTCCCCTCCAGGATGTCTACAAAATTGGTGGTATTGGAACCGTTCCTGTCGGTCGTGTTGAGACTGGTATCATCAAAGCGGGAATGGTTGTCACTTTCGCTCCCTCCAACGTCACCACTGAAGTCAAGTCTGTTGAAATGCATCACGAACAACTCGAGCAAGGTAACCCTGGTGACAATGTCGGTTTCAACGTCAAGAACGTGTCAGTGAAGGATATTCGTCGTGGTAACGTGGCCTCCGACTCCAAGAACGATCCCGCCAAGGAAGCGGCCTCTTTCAATGCACAGGTCATCGTCCTCAACCACCCTGGTCAAATTGGTGCTGGTTACGCCCCAGTTCTCGACTGTCACACYGCCCACATCGCCTGCAAGTTCGCTGAGCTCATCGAGAAGATCGATCGTCGTACGGGTAAATCCATTGAAAATAACCCCAAATTCGTCAAGTCGGGTGATGCCTGCATCGTCAAG---------------------

>TWO1168\_Laccaria\_THAI3\_THAILAND\_KU685745\_KU685896\_KU686042\_KU686146

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCGAGGCATGTGCTCGC-CCGTCATCTTT-ATCTCT--CCA-CTTGTGCACCTTTTGTAGTG-TT-GAATACCCCTCGAGGCAA-CTCGGATT----TTAG-GATTGCCGTGC---TGT---ACAAGTCGGCTTTTCTTTCATTTTC-AACGCTATGTTTT---CT--A-TATACA-CCAAAGTATGTTTAAAGAACGTCATC-AATAGGAAC---TTGTTTTCTA--TAAAAACTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAACCTTTCCAGC--------T-TTTATTAGTTTGG--TCAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTT-ATTTACTT---TATGAGGTCTGCTCTTCTGAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTATGAT-AATTATCTACACCGTAGAT-GTAAAGCAT-TCTTAT---AGAGTT-CAGCTTCT-AACTGTCC---ATTGACTTGGACA---------------------AAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGCATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGCTTTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGTGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC---TTTTTTT---GCTTGGCTTATTTTCTGGTCAATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCATCCTTTGGATGTGTTATAACCTTTGTTCGCATACATTAGTTGGGATTGAGGAACTCAGCACGCCGAAAGGCCGGG---TTATTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCGTGCGAGTGTTTTGGTGAAAAACCAGAGCGCATAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATCGACGCCCAGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGAaTGCTTTTCCGAAAGTGgACCAAGgATGTTtATCGTTATCtACAAAAGgtTGCTGAGCTTTGCCCAAGTGCC-----ATGAGATGTGCTGA-CCCCTCT---TCTTCAGTGCGTCGAGACCCACAAGGAGTTCAATCTTGCTCTTGCAGTGAAGCACCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGAGATCAGAAGAAGTCAATGTCTTCCAAGGCAGGGGTATCTCAGGTCTTGAACAGATATACATATGCATCCACTCTGTCACATCTTCGTCGATGTAACACTCCTCTAGGACGGGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAATACTCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCTCTTATGGCGTGCATATCAGTYGGGTCTTACTCCGCACCCGTCATTGARTTTTTGGAGGAGTGGGGATTGGAGTCATTGGAAGAGAACGCGCACTCATCRACACCTTGCACAAAAGTTTTCGTGAACGGTGTTTGGATGGGTGTGCATCGCGATCCTGCCAACTTGGTRAAGACGATAAAAAAATTGAGAAGGAAAGATGACATCAGCCCAGAAGTGTCAGTTGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCATGTCAAATGGCTCAGCAACGGCCTCAATGATGAYGGGGACGAGTATAAATGGGAACATTTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCGGARGAAGAGGAAACAGTGATGATATCTATGACTCCTGAAGATCTTGAAAATTCTCGCGTACAGCAAAGTGGTGTTGATCCTCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCACGCACACACATGGACGCATTGCGAAATTCATCCTAACGTGATTCTTGGCATTTGTGCCAGCATTATTCCTTTCCCTG---------------------------------------------------------------------------CGCGAGCACGCTCTCCTCGCTTTCACGCTCGGTGTGCGGCAACTCATCGTTGCTGTCAACAAGATGGACACCACTAAGGTAAGAAATGCTTCAC-ATATAGTCTGGCTTTTTGCACATTCTCATCATTTCA-AATAGTGGAGTGAGGACCGTTTCAACGAAATTATTAAGGAGACATCAACCTTTATCAAGAAGGTTGGTTACAACCCCAAGGCCGTTGCCTTTGTCCCTATTTCTGGTTGGCACGGTGACAACATGTTGGAGGAATCCACCAAGTAAGCATTC--TCGTATCGTTATGATCGCCCTGTTGCTCATATTTCACTC-AGCATGCCTTGGTAYAAGGGATGGACCAAGGAGACCAAGGCTGGTGTCGTCAAGGGCAAGACCCTCCTCGATGCTATTGATGCCATTGAGCCCCCCGTTCGACCTTCCGACAAACCCCTCCGTCTTCCCCTCCAGGATGTCTACAAAATTGGCGGTATTGGAACCGTGCCTGTCGGTCGTGTTGAGACTGGTATCATCAAAGCGGGAATGGTCGTCACTTTCGCTCCCTCCAACGTCACCACTGAAGTCAAGTCTGTTGAAATGCACCACGAACAGCTCGAGCAGGGTAACCCTGGTGACAATGTCGGTTTCAACGTCAAGAACGTGTCAGTGAAGGATATTCGACGTGGCAACGTGGCCTCCGACTCCAAGAACGATCCCGCCAAGGAAGCGGCCTCTTTCAATGCACAGGTCATCGTCCTCAACCACCCTGGTCAAATCGGTGCTGGCTACGCYCCGGTTCTCGACTGTCACACCGCCCACATCGCCTGCAAGTTCGCTGAGCTCATCGAGAAGATTGATCGTCGTACGGGTAAATCCATTGAAAACAACCCCAAATTCGTCAAGTCGGGTGATGCATGCATCGTCAAACTCGTTCCCAGCAAGCCTATG

>TWO1178\_Laccaria\_THAI4\_THAILAND\_KU685746\_KU685897\_KU686043\_KU686147

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGC-CCATCATCTTT-ATCTCT--CCA-CCTGTGCACCTTTTGTAGTC-TT-GAATACCTCTCGAGATGA-CTCGGATT----TTAG-AATTGCCGTGC---TGT---ACAAGTCGGCTTTTCTTTCATTTTC-AAGACTATGTTTT--TGT--A-TACACA-CCAAAGTATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTG--T-AAAACTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGTTTGG--TTAGGCTTGGA-TGTGGGGGG--TTGCAGGCTTT-ATTCACTT---TATGAAGTCTGCTCTCCTTAAATGCATTAGTGGAACTTTTGTGAACCATCTTATTGGTGTGAT-AATTATCTATGCCATGGAT-GTGAAGCAG--TTTTT---AAAGTT-CAGCTTCT-AACTGTCC---ATTGACTTGGACAA-----TATTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGCATTATCCGCGTTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC---TTTCTTT---GCTTGGCTAATTTTCTGGTCAATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAACCTTTGTTCACATACATCAGTTGGGATTGAGGAACTCAGCACGCCGAAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTTGGTGAAAAACCAGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCAGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTGTTCCGCATGCTTTtCCGAAAGTtGACcAaGgACGTTtATCGtTATCTACAAAAGgTtGCTGAGCTtCACTCAAGTGcC-----ATGAGATGTGCTGA-CcTCT-----tCtTCAGTGCGTCGAGACCCACAAGGAGTTCAATCTCGCTCtTGCTGTGAAGCACCAAACTATCACAAACGGCCTCAAATACTCTCTGGCCACAGGCAACTGGGGAGATCAGAAAAAGTCGATGTCTTCCAAGGCAGGGGTATCTCAGGTTTTGAACAGATACACATATGCATCCACTCTGTCTCATCTTCGTCGGTGTAACACTCCTCTAGGACGCGAAGGCAAGATCGCCAAGCCTCGTCAGTTGCACAACACTCACTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTTGCTCTTATGGCGTGCATATCAGTGGGGTCTTATTCCGCACCCGTTATCGAGTTTTTGGAGGAGTGGGGATTGGAGTCATTGGAAGAGAACGCGCACTCATCGACACCTTGCACAAAAGTTTTCGTGAACGGTGTCTGGATGGGTGTGCATCGTGATCCTGCCAACTTGGTGAAGACGATAAAGAAATTGAGAAGGAAGGATGACATCAGCCCAGAAGTGTCAGTTGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACTGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTACAGAAGAAGCAYGTCAAATGGCTCAGCAACGGTCTCAATGATGATGGAGACGAGTATAAATGGGAGCATTTAGTAAAGGGTGGCATCATTGAGTTGCTAGATGCGGAGGAAGAGGAAACAGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGCCTTGATCCTCACGCTAACGACGGCGAGTTTGACCCAGCAGCTCGATTGAAGGCTGGCACCCACGCACACACATGGACACATTGCGAGATTCATCCTAGCATGATTCTTGGCATTTGTGCTAGCATTATTCCTTTCCcTGATCAT----------------------------------------------------------------------CGCGAGCACGCTCTTCTCGCTTtCACCCTCGGTGtGCGGCAACTTATCGTTGCCGTCAaCAAGATGgACACCACCAAGGTATGAAATGTTTCA--TTATAGTCAGGC--TTTGCACA-TCTCATCATCTCA-AATAGTGGAGCGAGGACCGTTTCAACGAAATCATCAAGGAAACGTCAACCTTCATCAAGAAGGTTGGTTACAACCCAAAGGCCGTTGCCTTTGTTCCTATTTCCGGTTGGCACGGTGACAACATGTTGGAGGAGTCCACTAAGTAAACATTC--TCGTATCTTCATGATCGCTCTGTCTCTCATATTACACTC-AGCATGCCTTGGTACAAGGGCTGGACCAAGGAGACCAAGGCTGGTGTCGTGAAGGGCAAGACCCTTCTCGATGCTATTGATGCCATTGAGCCTCCCGTTCGACCTTCTGACAAACCCCTCCGCCTCCCCCTCCAGGATGTCTACAAAATTGGCGGTATCGGAACCGTACCCGTCGGTCGTGTTGAGACCGGTATCATCAAGGCCGGAATGGTCGTCACTTTCGCTCCCTCCAACGTTACCACTGAAGTCAAGTCTGTTGAAATGCATCACGAACAACTCGAGCAGGGTAACCCCGGTGACAATGTCGGTTTCAATGTCAAGAACGTGTCAGTGAAGGATATTCGTCGTGGCAACGTGGCCTCCGACTCCAAGAACGATCCCGCCAAGGAAGCGGCCTCTTTCAATGCACAGGTCATCGTCCTCAACCACCCTGGTCAAATTGGTGCTGGTTACGCCCCAGTTCTCGATTGTCACACCGCCCACATTGCCTGCAAATTCGCTGAGCTCATCGAGAAGATCGACCGTCGTACGGGTAAATCCATTGAAAACAACCCCAAATTCGTCAAGTCGGGTGATGCCTGCATCGTCAAGCTTGTACCCAGCAAGCCTATG

>TWO1184\_Laccaria\_THAI6\_THAILAND\_KU685747\_KU685898\_\_KU686148

CCTGA-TGTGGCTGTTAGCTGGC-TTTTTGAAGCATGTGCTCGC-TCATCATCTTT-ATCTCT--CCA-CCTGTGCACCTTTTGTAGTCTTT-GAATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATCGCTGTAC---TGTA--AAAAGTCGACTTTCCTTTCATTTTC-AAGACTATGTTTA----A--AATACACA-CCAAAGAAAGTTTAAAGAATGTCATT-AATAGGAAC---TTGTTTCCTA--T-AAAACTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTTAA-TTCTCAA-CCTTCTAGC--------TTTTTATTAGCTTGG--ATAGGCTTGGA-TGT-GGGAG--TTGCAGGCTTC-AC-----T---CATGAGGTTGGCTCTCCTTAAATGCATTAGCAGAACTTTTGTGGACCATCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT---GAAGTT-CAGCTTCT-AGTCGTCC---ATTGACTTGGACAA-----TTTTGACAA--TTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGCATTATCCGCGCTGGACCGTGTACAAGTCTTCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTACCAGGGC-TATGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC---TTTTTTT---GCTTGGCTTACTTTCTGGTTGACGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTTGGATGTGTTATAGCCTTTGTTCACATACATCGGTTGGGATTGAGGAACTCAGCACGCCGAAAGGCCGGG---TTTTAAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGGAAAACCCAAGTGCGTAATGAAAGTG-AAGGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCAGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGT---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------CGCGAGCACGCTCTCCTTGCTTTCACCCTTGGTGTGCGGCAACTTATTGTTGCCGTCAACAAGATGGACACTACTAAAGTAAGAAACGT------TTATAGTTAAGCTTCTTCCACATTCTCATCATCTCA-TATAGTGGAGCGAGGACCGTTTCAACGAAATCATCAAGGAGACGTCAACCTTCATCAAGAAGGTTGGTTACAACCCGAAGGCCGTTGCCTTTGTCCCCATTTCGGGCTGGCATGGTGACAACATGTTGGAGGAGTCCACTAAGTAAGCATTC--TCGTATCGCCTCGATCGCCCTGTCGCTCATGTT-TACTT-AGCATGCCTTGGTACAAGGGCTGGACCAAGGAGACCAAGGCTGGTTCCGTCAAAGGAAAGACCCTCCTTGATGCTATTGATGCCATCGAGCCCCCCGTCCGACCTTCCGACAAACCCCTCCGTCTCCCCCTCCAGGATGTCTACAAAATTGGCGGTATCGGAACTGTGCCCGTCGGTCGTGTTGAAACTGGTATCATCAAGGCCGGAATGGTCGTCACTTTCGCTCCCTCCAACGTCACCACTGAAGTCAAGTCCGTCGAAATGCATCACGAACAGCTGGAGCAGGGTAACCCTGGTGACAATGTCGGCTTCAATGTCAAGAACGTGTCAGTGAAGGATATTCGTCGTGGCAACGTGGCCTCCGACTCCAAGAACGATCCCGCCAAGGAGGCGGCTTCTTTCAATGCACAGGTCATCGTCCTCAACCACCCTGGTCAAATTGGTGCTGGTTACGCCCCAGTTCTAGACTGTCACACCGCCCACATCGCCTGCAAGTTTGCCGAGCTCATTGAGAAGATCGATCGTCGTACTGGTAAATCCATTGAAAACTCGCCCAAATTCGTCAAGTCAGGTGATGCCGCCATCGTCAAGCTCGTTTCTAGCAAGCCAATG

>TWO1194\_Laccaria\_THAI5\_THAILAND\_KU685748\_KU685899\_\_KU686149

CCTGA-TGTGGCTGTTAGCTGGC-TTTTTGAAGCATGTGCTCGC-CCGTCATCTTT-ATCTCT--CCA-CCTGTGCACCTTTTGTAGTCTTT-GAATAACTCTCGAGGCAA-CTCGGATT----TTAG-GATCGACGTGC---TGT---ACAAGTCGACTTTCCTTTCATTTTC-AGGACTATGTTTT----T--A-TACACACCCAAAGTATGTTTATAGAATGTCGTT-AATAGGAAT---TTGTTTCCTATTTTAAAACTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAACCTTTCCAGC--------T-TTTATTAGCTTGG-TTTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTCAAT---------AATGAGGTCAGCTCTCCTTAAATGCATTAGTGGAACTTTTGTAGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-RTGAAACAG-CTTTAT---AAAGTT-CAGCTTCC-AACTGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGCATTATCCGCGTTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TATGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTCTTT---GCTTGGCTTACTTTCTGGTTGACGGG-TCAGCATCAATTTTGACTGTTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATCAGTTGGGATTGAGGAACTCAGCACGCCGAAAGGCCGGG---TTTTAAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGGAAAACCCGAGTGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATCGACGCCCGGATCTGACCTTTTGTGACGATTCCGCGGTAGAGCATGT----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------GTGAGCACGCTCTCCTCGCTTTCACCCTCGGTGTGCGGCAACTCATCGTTGCCGTCAACAAGATGGACACCACTAAGGTAAGAAACGTTTCAT-TTCTAGATTGGCTTCT-GCACATTCTCATTATCTCA-TATAGTGGAGTGAGGACCGTTTCAACGAAATCATCAAGGAGACATCAACCTTCATTAAGAAGGTTGGTTACAACCCTAAGGCCGTTGCCTTTGTCCCTATTTCCGGCTGGCATGGTGACAACATGTTGGAGGAGTCCTCGAAGTAAGCATTC--TCGTATCGTCATGGTTGCCCTATCGCTCATGTTACACTC-AGCATGCCTTGGTACAAGGGCTGGACCAAGGAGACCAAGGCTGGTGTCGTTAAAGGCAAAACCCTCCTTGATGCTATTGATGCTATTGAGCCTCCCGTCCGACCTTCCGACAAACCCCTCCGTCTCCCTCTCCAGGATGTCTACAAAATTGGCGGTATCGGAACTGTGCCCGTCGGTCGTGTTGAGACTGGTATCATTAAGGCCGGAATGGTTGTCACTTTTGCTCCCTCCAACGTCACTACTGAAGTCAAGTCCGTCGAAATGCATCACGAACAGCTCGAGCAGGGTAACCCTGGTGACAATGTCGGTTTCAACGTCAAGAACGTGTCAGTGAAGGATATTCGTCGTGGCAACGTGGCCTCAGACTCCAAGAACGATCCCGCCAAGGAAGCGGCCTCTTTCAATGCACAGGTCATCGTCCTCAACCACCCTGGTCAAATTGGTGCTGGTTACGCTCCGGTTCTCGACTGTCACACCGCCCACATCGCCTGCAAGTTCGCCGAGCTCATCGAGAaGATTGATCGTCGTACGGGTAAATCTATCGAAAaCTCGCCCAAATTCGTCAAGTCAGgTGATGCCGCTATCGTCAAaCTCATTCCCAGCAaGCCTATG

>TWO1200\_Laccaria\_THAI3\_ThailandAUSTRALIA\_KU685743\_KU685894\_KU686040\_ef1a

CCTGA-TGTGGCTGTTAGCTGGC-TTTTAGAGGCATGTGCTCGC-CCGTCATCTTT-ATCTCT--CCA-CTTGTGCACCTTTTGTAGTG-TT-GAATACCCCTCGAGGCAA-CTCGGATT----TTAG-GATTGCCGTGC---TGY---ACAAGTCGGCTTTTCTTTCATTTTC-AACGCTATGTTTT---CT--A-TATACA-CCAAAGTATGTTTAAAGAACGTCATC-AATAGGAAC---TTGTTTTCTA--TAAAAACTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAACCTTTCCAGC--------T-TTTATTAGTTTGG--TCAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTT-ATTTACTT---TATGAGGTCTGCTCTYCTGAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTATGAT-AATTATCTACACCGTAGAT-GTAAAGCAT-TCTTAT---AGAGTT-CAGCTTCT-AACTGTCC---ATTGACTTGGACAA-----TTTTAATGA--TTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGCATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGCTTTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGYGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC---TTTTTTT---GCTTGGCTTATTTTCTGGTCAATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCATCCTTTGGATGTGTTATAACCTTTGTTCGCATACATTAGTTGGGATTGAGGAACTCAGCACGCCGAAAGGCCGGG---TTATTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCGTGCGAGTGTTTTGGTGAAAAACCAGAGCGCATAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATCGACGCCCAGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGCATGCTTTTCCGAAAGTTGACTAAGGATGTTTATCGTTATCTACAAAAGGTTGCTGAGCTTTGCCCAAGTGCC-----ATGAGATATGCTGA-CCCCTCT---TCTTCAGTGCGTCGAGACCCACAAGGAGTTCAATCTTGCTCTTGCAGTGAAGCACCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGAGATCAGAAGAAGTCAATGTCTTCCAAGGCAGGGGTATCTCAGGTCTTGAACAGATATACATATGCATCCACTCTGTCACATCTTCGTCGATGTAACACTCCTCTAGGACGGGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAATACTCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCCTGYGGTCTTGTCAAGAACCTCGCTCTTATGGCRTGCATATCAGTCGGGTCTTACTCCGCACCCGTTATTGARTTTTTGGAGGAGTGGGGATTGGAGTCATTGGAAGAGAACGCGCACTCATCGACACCTTGCACAAAAGTTTTCGTGAACGGTGTTTGGATGGGTGTGCATCGCGATCCTGCCAACTTGGTGAAGACGATAAAAAARTTGAGAAGGAAAGATGACATCAGCCCAGAAGTGTCAGTTGTGCGAGACATYAGGGAGAAGGAATTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAACTGGCACTTCAGAAGAAGCATGTCAAATGGCTCAGCAACGGCCTCAATGATGAYGGGGACGAGTATAAATGGGAACATTTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCGGAGGAAGAGGAAACAGTGATGATATCTATGACTCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGTGTTGATCCTCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGRTTGAAGGCTGGCACTCACGCACACACATGGACGCATTGCGAAATTCATCcTAGCATGATtCTtGGCATTTGTGCcAGCATTATCccTTTCCCTGACCAT-------------------------------------------------------AAAGATGGCCAGACCCGCGAGCACGCTCTCCTCGCTTTCACGCTCGGTGTGCGGCAACTCATCGTTGCTGTCAACAAGATGGACACCACTAAGGTAAGAAATGCTTCAC-ATATAGTCTGGCTTTTTGCACATTCTCATCATTTCA-AATAGTGGAGTGAGGACCGTTTCAACGAAATTATTAAGGAGACATCAACCTTTATCAAGAAGGTTGGTTACAACCCCAAGGCCGTTGCCTTTGTCCCTATTTCTGGTTGGCACGGTGACAACATGTTGGAGGARTCCACCAAGTAAGCATTC--TCGTATCGTTATGATCGCCCTGTTGCTCATATTTCACTC-AGCATGCCTTGGTACAAGGGATGGACCAAGGAGACCAAGGCTGGTGTCGTCAAGGGCAAGACCCTCCTCGATGCTATTGATGCCATTGAGCCCCCCGTTCGACCTTCCGACAAACCCCTCCGTCTTCCCCTCCAGGATGTCTACAAAATTGGCGGTATTGGAACCGTGCCTGTCGGTCGTGTTGAGACTGGTATCATCAAAGCGGGAATGGTCGTCACTTTCGCTCCCTCYAACGTCACCACTGAAGTCAAGTCTGTTGAAATGCACCACGAACAGCTCGAGCAGGGTAACCCTGGTGACAATGTCGGTTTCAACGTCAAGAACGTGTCAGTGAAGGATATTCGACGTGGCAACGTGGCCTCCGACTCCAAGAACGATCCCGCCAAGGAAGCGGCCTCTTTCAATGCACAGGTCATCGTCCTCAACCACCCTGGTCAAATCGGTGCTGGCTACGCCCCGGTTCTCGACTGTCACACCGCCCACATCGCCTGCAAGTTCGCTGAGCTCATCGAGAAGATTGATCGTCGTACGGGTAAATCCATTGAAAACAACCCCAAATTCGTCAAGTCGGGTGATGCCTGCATCGTCAAACTCGTTCCCAGCAAGCCTATG

>TWO319\_Laccaria\_montana \_\_DQ149862\_\_\_

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCGTCATCTTTAATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATAACTCTCGAGGCAA-CTCGGATT----TTAG-GATCGCCGTGC----------------TGCTTTCCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATG-AATGGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCCTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTGGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGTGGGCTTC-AT-----T---AATGAGGTCAGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCTGTGGAT-GTGAAGCAT-ATTTAT---GAAGTT-CAGCTTCT-AATCGTCC---ATTGACTTGGACAA----TTTTTGACAA-TTTGA-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>TWO591\_Laccaria\_montana \_\_DQ149865\_\_\_

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCGTCATCTTTAATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATAACTCTCGAGGCAA-CTCGGATT----TTAG-GATCGCCGTGC----------------TGCTTTCCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATG-AATGGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTGGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGTGGGCTTC-AT-----T---AATGAGGTCAGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCTGTGGAT-GTGAAGCAT-ATTTAT---GAAGTT-CAGCTTCT-AATCGTCC---ATTGACTTGGACAA----TTTTTGACAA-TTTGA-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>DKP303\_Laccaria\_violaceotincta\_INDIA\_MK141034\_\_\_

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGC-CCATCATCTTT-ATCTCT--CCA-CCTGTGCACCTTTTGTAGTC-TT-GAATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATTGCCGTGCTTAT-TACACAAAGTCGGCTTTTCTTTCATTTTC-AAGACTATGTTTT---CT--ATTACACA-CCAAAGTATGTTTAAAGAATGGCATC-AATAGGAAC---TTGTTTCCTA--TAAAAACTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAACCTTTCCAGC--------T-TTTATTAGTTTGG--TCAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-ATTTACTTT--TATGAGTTCTGCTCTCCTTAATTGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACACCGTGGATAGTAAAGCAA-TTTTAT---AAAGTT-CAGCTTCT-AACTGTCC---ATTGAATTGGACAA-----TTTTGACAA-TTTGA-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>ASIS24249\_Laccaria\_murina\_KOREA\_MG519552\_MG519592\_MG551625\_MG551658

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCGTCATCTTT-ATATCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATCGC------------------ATCAGCTTTCCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATC-AATGGGAACT--TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTATCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----T---GATGAGGTCAGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACTGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT---GGAGTT-CAGCTTCT-AACCGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTG-AAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATCGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCATGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGT--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------CTCGCCCTTATGGCGTGCATATCAGTCGGATCTTACTCCGCGCCCGTTATCGAGTTTTTGGAGGAGTGGGGATTGGAGTCTTTGGAAGAGAACGCACACTCATCGACACCTTGCACAAAAGTTTTTGTGAACGGTGTCTGGATGGGTGTGCATCGCGATCCTGCCAATTTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGACGACATCAGCCCAGAAGTGTCAGTTGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGCGACGAGTACAAATGGGAACATCTTGTAAAGGGTGGCATCATTGAGCTACTGGATGCCGAGGAAGAAGAAACAGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGCGTTGATCCTCACGCGAACGACGGCGAATTTGATCCAGCGGCTCGATTGAAGGCTGGCACACACGCACACACATGGTCACATTGCGAAA-----------------------------------------------------------------------------------------------------------------GGATGGCCAGACCCGCGAGCACGCTCTCCTCGCTTTCACCCTCGGTGTGCGGCAACTCATCGTTGCCGTCAACAAGATGGACACCACTA-----------------------------------------------------------AGTGGAGCGAGGATCGTTTCAACCAAATCATCAAGGAGACGTCAACCTTSATCAAGAAGGTTGGTTACAACCCCAAGGCCGTTGCCTTTGTCCCTATTTCCGGCTGGCACGGTGACAACATGTTGGAGGAGTCCTCT------------------------------------------------------AACATGCCTTGGTACAAGGGCTGGACCAAGGAGACCAAGGCTGGTGTCGTCAAGGGCAAGACTCTCCTCGATGCTATTGATGCCATTGAGCCCCCCGTCCGGCCTTTCAACAAACCCCTCCGCCTCCCCATCCAGGATGTCTACAAAATTGGCGGTATTGGAACTGTGCCCGTCGGTCGTGTTGAGACTGGGATCATCAAAGCCGGAATGGTCGTCACTTTCGCTCCCTCCCACGTCACCACTGAAGTCAAGTCCATCGAAATGCATCACGAA---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>SFC20120919-81\_Laccaria\_vinaceoavellanea\_KOREA\_MG519534\_MG519577\_MG551609\_

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCAAAGCATGTGCTCGC-CCATCATCTTT-ATCTCT--CCA-CCTGTGCACCTTTTGTAGTC-TT-GAATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATTGYCGTGCTTTTATACACAAAGTCGGCTTTTCTTTCATTTTC-AAGACTATGTTTT---CT--A-TACACA-CCAAAGTATGTTTAAAGAACGTCATC-AATAGGAAC---TTGTTTCCTA--TAAAAACTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAACCTTTCCAGC--------T-TTTATTAGTTTGG--TCAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----T-------TAGTCTGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACACCGTGGAT-GTAAAGCAGTTTTTAT-AAAAAGTT-CAGCTCCT-AACTGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTG-AAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGCATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTACCAGGGCTTTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTATTTTCTGGTCAATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTTGGATGTGTTATAGCCTTTGTTCGCATACATCAGTTGGGATTGAGGAACTCAGCACGCCGAAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTTGGTGAAAAACCAGAGTGCATAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATCGACGCCCAGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGT--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------CTAGCTCTTATGGCATGCATATCAGTCGGGTCTTACTCCGCACCCGTTATTGAGTTTTTGGAGGAGTGGGGGTTGGAGTCATTGGAAGAGAACGCACACTCAACGACACCTTGCACAAAAGTTTTCGTGAACGGTGTCTGGATGGGTGTGCACCGTGATCCTGCCAACTTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGATGACATCAGCCCAGAAGTGTCTGTTGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGTTGGCACTTCAGAAGAAGCACGTCAAGTGGCTCAGCAACGGCCTCAATGATGATGGCGACGAGTATAAATGGGAACATCTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCGGAGGAAGAGGAAACAGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGCGTTGATCCTCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCACGCACACACATGGACACTTGGAGA----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>SFC20150810-10\_Laccaria\_vinaceoavellanea\_KOREA\_MG519539\_MG519580\_MG551614\_MG551646

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGC-CCATCATCTTT-ATCTCT--CCA-CCTGTGCACCTTTTGTAGTC-TT-GAATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATTGCCGTGC-TTTATACACAAAGTCGGCTTTTCTTTCATTTTC-AAGACTATGTTTT---CT--A-TACACA-CCAAAGTATGTTTAAAGAACGTCATC-AATAGGAAC---TTGTTTCCTA--TAAAAACTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGRATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAACCTTTCCAGC--------T-TTTATTAGTTTGG--TCAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----T-------TAGTCTGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACACCGTGGAT-GTAAAGCAGTTTTTAT-AAAAAGTT-CAGCTCCT-AACTGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTG-AAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGCATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTACCAGGGCTTTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTATTTTCTGGTCAATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTTGGATGTGTTATAGCCTTTGTTCGCATACATCAGTTGGGATTGAGGAACTCAGCACGCCGAAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTTGGTGAAAAACCAGAGTGCATAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATCGACGCCCAGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGT--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------CTAGCTCTTATGGCATGCATATCAGTCGGGTCTTACTCCGCACCCGTTATTGAGTTTTTGGAGGAGTGGGGGTTGGAGTCATTGGAAGAGAACGCACACTCAACGACACCTTGCACAAAAGTTTTCGTGAACGGTGTCTGGATGGGTGTGCACCGTGATCCTGCCAACTTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGATGACATCAGCCCAGAAGTGTCTGTTGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTAYACCGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGTTGGCACTTCAGAAGAAGCACGTCAAGTGGCTCAGCAACGGCCTCAATGATGATGGCGACGAGTATAAATGGGAACATCTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCGGAGGAAGAGGAAACAGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGCGTTRATCCTCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCACGCACACACATGGACACATTGCGARA-----------------------------------------------------------------------------------------------------------------GGATGGCCAGACCCGCGAGCACGCCCTCCTCGCTTTCACGCTCGGTGTGCGGCAACTCATCGTTGCTGTCAACAAGATGGACACTACTAAGGTAAGAAATGTTTCAC-TTATAGTCAGGCTTTTTGCATATTCTTATC---TCA-AATAGTGGAGCGAGGACCGTTTCAACGAAATCATCAAGGAGACGTCAACCTTCATCAAGAAGGTTGGTTACAACCCCAAGGCCGTTGCCTTTGTCCCTATTTCCGGTTGGCACGGTGACAACATGTTGGAGGAATCCACAAAGTAAGCGTTC--TCGTACCGTCATGAACGCCCTGTCGCTCATATTACATTC-AGCATGCCTTGGTACAAGGGCTGGACCAAGGAGACCAAGGCTGGTGTCGTCAAGGGCAAGACCCTCCTCGATGCTATTGATGCCATTGAGCCCCCCGTTCGACCTTCCGACAAACCCCTTCGTCTTCCCCTCCAGGATGTYTACAAAATCGGCGGTATTGGAACCGTACCTGTCGGTCGTGTTGAGACTGGTATCATCAAAGCGGGAATGGTCGTCACTTTCGCACCCTCYAACGTCACCACTGAAGTCAAGTCTGTTGAAATGCATCACGAACAGCTCGAG------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>TPML20120912-40\_Laccaria\_araneosa\_KOREA\_MG519548\_MG519588\_MG551621\_MG551654

CCTGA-TG-GGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CTGTCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATCGCTGTGC---TGT---ACAAGTCGGCTTTTCTTTCATTTCC-AAGACTATGTTTT----T--ATTATACA-CCAAAGTATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--T-AAAAATATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAAC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGTGGGCTTC-AT-----T---AATGAGGTCGGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT---GAAGTT-CTGCTTCT-AACCGTCC---ATTGACTTGGACAA-----CTTTGACAA-TTTG-AAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGGGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATATGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTTGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCACATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTATTTGGGTGAAAAACCCGAGTGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGT--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------CTCGCCCTTATGGCGTGCATATCAGTCGGGTCTTACTCCGCGCCCGTTATCGAGTTTTTGGAGGAGTGGGGAYTGGAGTCATTGGAAGAGAACGCGCACTCATCAACACCCTGCACAAAAGTTTTTGTGAACGGTGTGTGGATGGGTGTGCATCGCGATCCTGCCAATTTGGTGAAGACGATAAAGAAGTTGAGAAGGAAAGACGACATTAGCCCAGAAGTGTCAGTTGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTTGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGCGATGAATACAAATGGGAACATCTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCTGAAGAAGAGGAAACAGTGATGATATCCATGACCCCCGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGCGTTGATCCTCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCACGCACACACATGGACACATTGCGAAA-----------------------------------------------------------------------------------------------------------------GGATGGCCAGACCCGCGAGCACGCTCTCCTCGCTTTCACCCTCGGTGTGCGGCAACTCATCGTTGCTGTCAACAAGATGGACACCACTAAGGTAAGAAACATTTCAC-TTATAGTAAGGCTCCTTGCACATTCTCATCATCTCA-TRTAGTGGAGCGAGGACCGTTTCAACGAAATCATCAAGGAGACGTCAACCTTCATCAAGAAGGTTGGTTACAACCCCAAGGCCGTTGCCTTTGTCCCTATTTCCGGGTGGCACGGCGACAACATGTTGGAGGAGTCCGCCAAGTAAGCAGTC--TCGTATTGTCATGATCGCCCCGTCGCTCATGTTGCACTC-AGCATGCCTTGGTACAAGGGCTGGACCAAGGAGACCAAGGCTGGTGTCGTCAAGGGCAAGACCCTCCTCGATGCTATTGATGCCATTGAGCCCCCTGTCCGACCTTCCGACAAACCCCTCCGTCTCCCCCTCCAGGATGTTTACAAAATTGGTGGTATCGGAACTGTGCCCGTCGGTCGTGTTGAGACTGGTATCATCAAGGCCGGAATGGTCGTCACTTTCGCTCCCTCTAATGTCACCACTGAAGTCAAGTCCGTCGAAATGCATCACGAACAGCTCGAG------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>SFC20130917-21\_Laccaria\_araneosa\_KOREA\_MG519549\_MG519589\_MG551622\_MG551655

CCTGA-TG-GGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CTGTCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATCGCTGTGC---TGT---ACAAGTCGGCTTTTCTTTCATTTCC-AAGACTATGTTTT----T--ATTATACA-CCAAAGTATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--T-AAAAATATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAAC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGTGGGCTTC-AT-----T---AATGAGGTCGGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT---GAAGTT-CTGCTTCT-AACCGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTG-AAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGGGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATATGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTTGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCACATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTATTTGGGTGAAAAACCCGAGTGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGT--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------CTCGCCCTTATGGCGTGCATATCAGTCGGGTCTTACTCCGCGCCCGTTATCGAGTTTTTGGAGGAGTGGGGATTGGAGTCATTGGAAGAGAACGCGCACTCATCAACACCCTGCACAAAAGTTTTTGTGAACGGTGTGTGGATGGGTGTGCATCGCGATCCTGCCAATTTGGTGAAGACGATAAAGAAGTTGAGAAGGAAAGACGACATTAGCCCAGAAGTGTCAGTTGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTTGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGCGATGAATACAAATGGGAACAYCTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCTGAAGAAGAGGAAACAGTGATGATATCCATGACCCCCGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGCGTTGATCCTCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCACGCACACACATGGACACATTGCGAAA-----------------------------------------------------------------------------------------------------------------GGATGGCCAGACCCGCGAGCACGCTCTCCTCGCTTTCACCCTCGGTGTGCGGCAACTCATCGTTGCTGTCAACAAGATGGACACCACTAAGGTAAGAAACATTTCAC-TTATAGTAAGGCTCCTTGCACATTCTCATCATCTCA-TGTAGTGGAGCGAGGACCGTTTCAACGAAATCATCAAGGAGACGTCAACCTTCATCAAGAAGGTTGGTTACAACCCCAAGGCCGTTGCCTTTGTCCCTATTTCCGGGTGGCACGGCGACAACATGTTGGAGGAGTCCGCCAAGTAAGCAGTC--TCGTATTGTCATGATCGCCCCATCGCTCATGTTGCACTC-AGCATGCCTTGGTACAAGGGCTGGACCAAGGAGACCAAGGCTGGTGTCGTCAAGGGCAAGACCCTCCTCGATGCTATTGATGCCATTGAGCCCCCTGTCCGACCTTCCGACAAACCCCTCCGTCTCCCCCTCCAGGATGTTTACAAAATTGGTGGTATCGGAACTGTGCCCGTCGGTCGTGTTGAGACTGGTATCATCAAGGCCGGAATGGTCGTCACTTTCGCTCCCTCTAACGTCACCACTGAAGTCAAGTCCGTCGAAATGCATCACGAACAGCTCGAG------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>SFC20120919-05\_Laccaria\_parva\_KOREA\_MG519529\_MG519573\_MG551604\_MG551640

CCTGA-TGTGACTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCGTCATCTTTAATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GAATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATTGCC---------------AAGTTGGCTTTCCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATT-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATAAGCTTGG--TTAGGCTTGGA-TGT-GGGAG--TTGCGGGCTTC-AT-----C---AATGAGGTCGGCTTTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAACAG-CTTTAT---GAAGTT-CAGCTTCA-AACCGTCC---ATTCACTTGGACAA-----TTTTGACAA-TTTG-AAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCACGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTAG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCACATATATCAGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGT--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------CTCGCTCTTATGGCGTGCATATCAGTCGGGTCTTACTCCGCGCCCGTTATCGAGTTTTTGGAGGAGTGGGGATTGGAGTCATTGGAAGAGAACGCGCACTCATCAACACCTTGCACAAAAGTTTTCGTGAACGGTGTGTGGATGGGTGTGCATCGCGATCCTGCCAACTTGGTGAAGACGATAAAGAAATTGAGAAGAAAAGACGACATTAGTCCAGAAGTGTCAGTTGTGCGAGACATCAGGGAGAAAGAACTGAGGTTGTACACAGACGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAATGATGATGGCGATGAGTACAAATGGGAACATCTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCTGAGGAAGAGGAAACAGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCTTACAACAAAGTGGTGTTGATCCTCACGCGAATGACGGCGAGTTTGATCCAGCGGCTCGTTTGAAGGCTGGCACTCACGCGCACACATGGACACATTGCGAAA-----------------------------------------------------------------------------------------------------------------GGATGGCCAGACCCGCGAGCACGCTCTCCTCGCTTTCACACTCGGTGTGCGGCAACTCATCGTTGCCGTCAACAAGATGGACACCACTAAGGTAAGAAACGTTACAC-TTATAGTAAGGTTGCTTGCACGTTCYCATCATCTCY-TGTAGTGGAGCGAGGACCGTTTCAACGAAATCATCAAGGAGACGTCAACCTTYATCAAGAAGGTTGGTTACAACCCCAAGGCCGTTGCCTTTGTCCCTATTTCCGGCTGGCACGGTGACAACATGTTGGAGGAGTCCGCTAAGTAAGCATTG--TCGTATCGTCATGATGGCCCCGTCGCTCATGTTGTACTCAAGCATGCCTTGGTACAAGGGCTGGACCAAGGAGACGAAGGCTGGTGTCGTCAAGGGCAAGACCCTCCTCGATGCTATTGATGCCATTGAACCCCCCGTCCGACCTTCCGACAAACCCCTCCGTCTCCCCCTCCAGGATGTCTACAAAATTGGCGGTATCGGAACTGTGCCTGTCGGTCGTGTTGAGACTGGTATCATCAAGGCCGGAATGGTCGTCACTTTCGCTCCCTCTAACGTCACCACTGAGGTCAAGTCCGTTGARATGCATCACGAACAGCTCGAG------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>ASIS21282\_Laccaria\_parva\_KOREA\_MG519526\_MG519571\_MG551601\_MG551638

CCTGA-TGTGACTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCGTCATCTTTAMTCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GAATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATTGCC---------------AAGTTGGCTTTCCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATT-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATAAGCTTGG--TTAGGCTTGGA-TGT-GGGAG--TTGCGGGCTTC-AT-----C---AATGAGGTCGGCTTTCCTYAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAACAG-CTTTAT---GAAGTT-CAGCTTCA-AACCGTCC---ATTCACTTGGACAA-----TTTTGACAA-TTTG-AAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTCTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCACGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTAG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCACATATATCAGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGT--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------CTCGCTCTTATGGCGTGCATATCAGTCGGGTCTTACTCCGCGCCCGTTATCGAGTTTTTGGAGGAGTGGGGATTGGAGTCATTGGAAGAAAACGCGCACTCATCAACACCTTGCACAAAAGTTTTCGTGAACGGTGTGTGGATGGGTGTGCATCGCGATCCTGCCAACTTGGTGAAGACGATAAAGAAATTGAGGAGAAAAGACGACATTAGTCCAGAAGTGTCAGTTGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACAGACGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGYAACGGCCTCAATGATGATGGCGATGAGTACAAATGGGAACATCTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCTGAGGAAGAGGAAACAGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCTTACAACAAAGTGGTGTTGATCCTCACGCGAATGACGGCGAGTTTGACCCAGCAGCTCGTTTGAAGGCTGGCACTCACGCGCACACATGGACACATTGCGAAA-----------------------------------------------------------------------------------------------------------------GGATGGCCAGACCCGCGAGCACGCTCTCCTCGCTTTCACACTCGGTGTGCGGCAACTCATCGTTGCCGTCAACAAGATGGACACCACCAAGGTAAGAAACGTTACAC-TTATAGTAAGGTTGCTTGCACGTTCTCATCATCTCC-TGTAGTGGAGCGAGGACCGTTTCAACGAAATCATCAAGGAGACGTCAACCTTCATCAAGAAGGTTGGTTACAACCCCAAGGCCGTTGCCTTTGTCCCTATTTCCGGCTGGCACGGTGACAACATGTTGGAGGAGTCCGCTAAGTAAGCGTTG--TCGTATCGTCATGATGGCCCCGTCGCTCATGTTGTACTCAAGCATGCCTTGGTACAAGGGCTGGACCAAGGAGACGAAGGCTGGTGTCGTCAAGGGCAAGACCCTCCTCGATGCTATTGATGCCATTGAACCCCCCGTCCGACCTTCCGACAAACCCCTCCGTCTCCCCCTCCAGGATGTCTACAAAATTGGCGGTATCGGAACTGTGCCTGTCGGTCGTGTTGAGACTGGTATCATCAAGGCCGGAATGGTCGTCACTTTCGCTCCCTCTAACGTCACCACTGAGGTCAAGTCCGTTGAAATGCATCACGAACAGCTCGAG------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>SFC20150902-17\_Laccaria\_torosa\_KOREA\_MG519561\_MG519598\_MG551631\_MG551664

CCTGA-TGTGGCTGTTAGCTGGC-TTTTTGAAGCATGTGCTCGT-CCATCATCTTT-ATCTCTCTCCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATCGCTGTGC---TGT---ACAAGTCAGCTTTCCTTTAATTTCT-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATC-AATAGGAACTTGTTGTTTCCTA--TAAAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGTGGGGGG--TTGTGGGCTTC-AT-----T---AATGAGGTCGGCTCTCCTTAAATGTATTAGCAGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTATGCCGTGGAT-GTGAAGCAGCTTTTAC---AAAGTT-CAGCTTCT-AACTGTCC---ATTGACTTGGATAA---ATTTTTGACAA-TTTG-AAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAATTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATATGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC-TTTTTTTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTTGGATGTGTTATAGCCTTTGTTCACATACATTAGTTGGGATTGAGGAACTCAGCACGCCGAAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCGTGCGAGTGTTTGGGTGAAAAACCCGTGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAAAGCATGC--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------CTCGCCCTTATGGCGTGCATATCAGTTGGGTCTTACTCTGCGCCCGTTATCGAGTTTTTGGAGGAGTGGGGATTGGAGTCATTGGAAGAGAACGCACACTCATCAACACCTTGCACAAAAGTTTTCGTGAACGGTGTCTGGATGGGTGTGCATCGCGATCCTGCCAATTTGGTGAAGWCGATAAAGWAATTGAGAAGGAAAGACGACATCAGTCCAGAAGTCTCAGTTSTGCGAGACATCAGGGAGAAAGAATTGAGGYTGTACACCGATGCTGGWCGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGCGACGAGTACAAATGGGAACATCTGGTAAAGGGTGGTATCATTGAGTTACTGGATGCTGAGGAGGAGGAAACAGYGATGATATCCATGACCCCCGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGTGYTGATCCYCACGCAAACGACGGCGAGTTYGATCCAGCAGCTCGATTGAAAGCCGGCACTCACGCACACACATGGACACATTGCGAAA-----------------------------------------------------------------------------------------------------------------GGATGGCCAGACCCGCGAGCACGCTCTCCTCGCTTTCACCCTCGGTGTGCGGCAACTTATCGTTGCCGTCAACAAGATGGACACCACTAAGGTAAGAAACGTTCCAC-TTATAGTTAGGCTTCTTGCACATTCTCATCATCTCA-TTTAGTGGAGCGAGGACCGTTTCAACGAAATCATCAAGGAGACGTCAACCTTCATCAAGAAGGTTGGTTACAACCCCAAGGCCGTTGCCTTTGTCCCTATTTCAGGCTGGCACGGTGACAACATGTTGGAGGAGTCCTCTAAGTAAGCATTC--CCGTATCGTCATGATCGCCCCGTCGCTCATGTTGCACAC-AGCATGCCTTGGTACAAGGGCTGGACCAAGGAGACCAAGGCTGGTGTCGTCAAGGGCAAGACCCTCCTCGATGCTATTGATGCCATTGAGCCCCCCGTCCGACCTTCCGACAAACCCCTCCGTCTCCCCCTTCAGGATGTCTACAAAATTGGCGGTATCGGAACTGTGCCCGTCGGTCGTGTTGAGACTGGTATCATCAAGGCCGGAATGGTCGTCACTTTTGCTCCCTCCAACGTCACCACTGAAGTCAAGTCCGTCGAAATGCATCACGAACAGCTCGAG------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>SFC20121010-51\_Laccaria\_versiforma\_KOREA\_MG519555\_MG519593\_MG551626\_MG551659

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCGTCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GRATATTGCT--------------------------------------------------------------------TCC-AAGACTATGTTTT----TATA-TAYACA-CCAAAGTATGTTTAAAGAATGTCATC-AATAGAAAC---TTGTTTTCTA--TAAAAAATATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAAC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTCTAT-----T---AATGAGGTCAGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACTGTCTA-TTGGTGTGAT-AATTATCTATGCCGTGGAT-GTGAAGCAG-CTTTAT---GAAGTT-CAGCTTCG-AACCGTCC---ATTGACTTGGACAA----TTTTTGACAA-TTTG-AAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCATCATAGAGGGTGAGAATCCCGTCTTTGACATGGACTGCCAGGGC-TTTGTGATATGCTCTCGAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC---TTTTTTT---GCTTGGCTTACTTTCTGGTCAATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTTGGATGTGTTATAGCCTTTGTTCATATACATTGGTTGGGATTGAGGAACTCAGCACGCCGAAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGT--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------CTCGCCCTTATGGCGTGCATATCAGTCGGGTCTTACTCCGCGCCCGTTATCGAGTTTTTGGAGGAGTGGGGGTTGGAGTCATTGGAAGAGAACGCGCACTCATCAACACCTTGCACAAAAGTTTTCGTGAACGGTGTCTGGATGGGTGTACATCGCGATCCTGCCAATTTGGTGAAAACGATAAAGAAATTGAGAAGGAAAGATGACATCAGTCCAGAGGTGTCAGTTGTGCGAGACATCAGGGAGAAGGAACTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGACGATGGTGACGAGTACAAATGGGAACATCTGGTAAAGGGTGGCATTATTGAGTTGCTGGATGCTGAGGAGGAGGAAACGGTGATGATATCCATGACCCCCGAAGACCTTGAAAATTCTCGCCTACAGCAAAGTGGTGTTGATCCTCACGCGAACGACGGCGAGTTTGATCCGGCGGCTCGATTGAAGGCGGGCACTCACGCACACACGTGGACACATTGCGAAA-----------------------------------------------------------------------------------------------------------------GGATGGCCAGACCCGCGAGCACGCTCTCCTCGCTTTCACCCTCGGTGTACGGCAACTCATCGTTGCCGTCAAYAAGATGGACACYACTAAGGTAAGGGATGTTTCGC-TTATAGTTAGGCTTCCTGCACATTCTCATCATCTCA-TGTAGTGGAGCGAGGACCGTTTCAACGAAATCATCAAGGAGACRTCAACCTTCATCAAGAAGGTTGGTTACAACCCCAAGGCCGTTGCCTTTGTGCCTATTTCCGGGTGGCACGGTGACAACATGTTGGAGGAGTCCTCTAAGTAAGCATTC--TCGTATCGTCATGATCGCCCCGTCGCTCATGTTGCACTC-AGCATGCCTTGGTACAAGGGCTGGACCAAGGAGACCWAGGCTGGTGTCGTCAAGGGCAAGACCCTCCTCGATGCTATTGATGCTATTGAGCCCCCCGTCCGACCTTCCGACAAACCCCTCCGTCTCCCCCTCCAGGATGTCTACAAAATTGGCGGTATCGGAACTGTGCCCGTCGGTCGTGTTGAGACTGGTATCATCAAAGCCGGAATGGTCGTCAATTTCGCTCCCTCCAACGTCACCACTGAAGTCAAGTCTGTCGAAATGCATCACG-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>SFC20120926-01\_Laccaria\_versiforma\_KOREA\_MG519556\_MG519594\_MG551627\_MG551660

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCGTCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATATTGCT--------------------------------------------------------------------TCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATC-AATAGAAAC---TTGTTTTCTA--TGAAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAAC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-AGT-GGGGG--TTGCGGGCTTCTAT-----T---AATGAGGTCAGCTCTCCTTAAATGCATTAGTGGAACTTTTGTGGACCCTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT---GAAGTT-CAGCTTCT-AACTGTCC---ATTGACTTGGACAA----TTTTTGACAA-TTTG-AAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATATGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGTGTTGGCCAGGGATCAA-CCTTGC----TCTTTT---GCTTGGCTTATTTTCTGGTCAATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCATATGCATTGGTTGGGATTGAGGAACTCAGCACGCCGAAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTAGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGT--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------CTCGCCCTTATGGCGTGCATATCAGTCGGGTCTTACTCCGCGCCCGTTATCGAGTTTTTGGAGGAGTGGGGGTTGGAGTCATTGGAAGAGAACGCGCACTCATCAACACCTTGCACAAAAGTTTTCGTGAACGGTGTCTGGATGGGTGTACATCGCGATCCTGCCAATTTGGTGAAAACGATAAAGAAATTGAGAAGGAAAGATGACATCAGTCCAGAGGTGTCAGTTGTGCGAGACATCAGGGAGAAGGAACTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGACGATGGTGACGAGTACAAATGGGAACATCTGGTAAAGGGTGGCATTATTGAGTTGCTGGATGCTGAGGAGGAGGAAACGGTGATGATATCCATGACCCCCGAAGACCTTGAAAATTCTCGCCTACAGCAAAGTGGTGTTGATCCTCACGCGAACGACGGCGAGTTTGATCCGGCGGCTCGATTGAAGGCGGGCACTCACGCACACACGTGGACACATTGCGAAA-----------------------------------------------------------------------------------------------------------------GGATGGCCAGACCCGCGAGCACGCTCTCCTCGCTTTCACCCTCGGTGTACGGCAACTCATCGTTGCCGTCAACAAGATGGACACCACTAAGGTAAGGGATGTTTCGC-TTATAGTTAGGCTTCCTGCACATTCTCATCATCTCA-TGTAGTGGAGCGAGGACCGTTTCAACGAAATCATCAAGGAGACRTCAACCTTCATCAAGAAGGTTGGTTACAACCCCAAGGCCGTTGCCTTTGTGCCTATTTCCGGGTGGCACGGTGACAACATGTTGGAGGAGTCCTCTAAGTAAGCATTC--TCGTATCGTCATGATCGCCCCGTCGCTCATKTTGCACTC-AGCATGCCTTGGTACAAGGGCTGGACCAAGGAGACCAAGGCTGGTGTCGTCAAGGGCAAGACCCTCCTCGATGCTATTGATGCTATTGAGCCCCCCGTCCGACCTTCCGACAAACCCCTCCGTCTCCCCCTCCAGGATGTCTACAAAATTGGCGGTATCGGAACTGTGCCCGTCGGTCGTGTTGAGACTGGTATCATCAAAGCCGGAATGGTCGTCAATTTCGCTCCCTCCAACGTCACCACTGAAGTCAAGTCTGTCGAAATGCATCACGAACAGCTTGAG------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>F1102432\_Laccaria\_amethystea\_COSTA\_RICA\_KU685638\_KU685781\_KU686062\_

-CTGA-TGTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGTCCCGTCATCTTT-ATCTCT--CCA-CCTGTGAACATTTTGTAGTC-TT-GGATACCTCTCGAGTCAA-CTCGGATT--T-TAAG-GATTGCCGTGC---TTGT--ACAAGTTGGCTTTCCTTTCACTTCC-AAGACTATGTTTT-------A-YACACA-CCCAAGTATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--TTAGGATTGGA-TGT-GGGAG--TTGCAGGCTTC-AT-----T---AAYGAGGTCAGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-ATCTAT---GAAGTT-CAGCTTCT-AACCGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCGGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGGGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCATTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTCAATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTTGGATGTGTTATAGCCTTTGTTCACATACATTGGTCGGGATTGAGGAACTCAGCACGCTGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCATGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGCATGCTTTTCCGAAAGTTGACMAaGGATGTTTATCGTTATTTACAAAAGGTTGCTGACCTTCGTTCAAGTGCC-----ATGARATGTGCTGA-CCCCTCT---TCTTCAGTGCGTCGAGACCCACAAGGAGTTCAACCTTGCCCTTGCAGTTAAGCATCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACCGGWAACTGGGGAGATCARAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCCCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGGCGCGAAGGCAAGATCGCCAAACCTC-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>F1102433\_Laccaria\_gomezii\_COSTA\_RICA\_\_F1102433\_RPB2\_

-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------AAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATATGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTTGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCACATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTATTTGGGTGAAAAACCCAAGTGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGCATGCTGTTCCGAAAGTTGACCAAGGACGTTTATCGTTATCTACAAAAGGTTGCTGACTTTCGCTCAAGTGCC-----ATGAGACATGTTGA-CCTCTCT---TCTTCAGTGCGTCGAGACCCACAAGGAGTTCAACCTTGCCCTTGCAGTTAAGCATCAAACCATTACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGGGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACATCTCCGTCGGTGTAACACTCCTCTAGGACGCGAAGGCAAGATCGCCAAGCCTCGTCAGTTGCACAACACCCACTGGGG----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>F1102471\_Laccaria\_major\_COSTA\_RICA\_F1102471\_\_\_

-------GTGACTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCATCGTCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATA----TTAG-GATCGCC--------------CAAGTTGGCTTTCCTTTCATTTCC-AAGACTATGTTTT-------A-TATACA-CCAAAGTATGTTTTGAGAATGTCATC-AATAGGAAC---TTGTTTTCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATCAAA-TTCTCAACCTTTCCAGC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--CTGCAGGCTTC-AT-----T---AATGAGGTTGGCTCTCCTTAAATGCATTAGCGGAACTTTTGTAGACCGTCTA-TTGGTGTGAT-AAATATCTACGCCGTGGAT-GTAAT--------------GAAGTT-CAGCTTCT-AACCGTCC---------TTGGACAA-----TTTTGACAA-TTTGA-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>F1104722\_Laccaria\_calospora\_COSTA\_RICA\_KU685639\_KU685782\_\_

-CTGA-TGTGACTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCATCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGAAA-CTCGGATT----TTAG-GATTGTCGTGC---TGT---ACAAGTCGACTTTTCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATG-TTATAGAATGTCATC-AATGGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAAC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-TT-----C---ACTGAGGTCAGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT---GAAGTT-CTGCTTCT-AACTGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATATGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTTGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCACATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTATTTGGGTGAAAAACCCAAGTGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGT-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>F1111951\_Laccaria\_trichodermophora\_COSTA\_RICA\_KU685640\_KU685784\_KU686063\_

CCTGA-TGTGACTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCATCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGAAA-CTCGGATT----TTAG-GATCGCCGTGC---TGT---ACAAGTCGGCTTTTCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTATAGAATGTCATC-AATGGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAAC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----C---ACTGAGGTCGGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT---GAAGTT-CTGCTTCT-AACCGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATATGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC------TTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCACATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTATTTGGGTGAAAAACCCGAGTGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCCGCATGCTTTTCCGAAAGTTGACCAAGGACGTTTATCGTTATCTACAAAAGGTTGCTGACTTTCGCTCAAGTGCC-----ATGAGACGTGTTGA-CCTCTCT---TCTTCAGTGCGTCGAGACCCACAAGGAGTTTAACCTTGCCCTTGCAGTTAAGCATCAAACCATTACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGGGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACATCTCCGTCGGTGTAACACTCCTCTAGGACGCGAAGGCAAGATCGCCAAGCCTCGTCAGTTGCACAACACCCATTGGGGAATGGTCTGCCC----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>F1112018\_Laccaria\_amethystina\_COSTA\_RICA\_F1112018\_\_\_

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGTCCCGTCATCTTT-ATCTCT--CCA-CCTGTGAACATTTTGTAGTC-TT-GGATACCTCTCGAGTCAA-CTCGGATT--T-TAAG-GATTGCTGTGC---TTGT--ACAAGTTGGCTTTCCTTTCACTTCC-AAGACTACGTTTT-------A-TACACA-CCCAAGTATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--TTAGGATTGGA-TGT-GGGAG--TTGCAGGCTTC-AT-----T---AATGAGGTCAGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-ATCTAT---GAAGTT-CAGCTTCT-AACCGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGA-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>GMM6012\_Laccaria\_major\_COSTA\_RICA\_KU685758\_KU685909\_KU686057\_

CCTGA-TGTGACTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCATCGTCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATA----TTAG-GATCGCC--------------CAAGTTGGCTTTCCTTTCATTTCC-AAGACTATGTTTT-------A-TATACA-CCAAAGTATGTTTTGAGAATGTCATC-AATAGGAAC---TTGTTTTCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATCAAA-TTCTCAACCTTTCCARC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--CTGCAGGCTTC-AT-----T---AATGAGGTTGGCTCTCCTTAAATGCATTAGCGGAACTTTTGTAGACCGTCTA-TTGGTGTGAT-AAATATCTACGCCGTGGAT-GTAAT--------------GAAGTT-CAGCTTCT-AACCGTCC---------TTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGGTGTACTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCACGTCGGCCAGGGATCAA-CCTTGC----TTCTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTATTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTTGAGCATGCTTTCCGCATGCTTTTCCGGAAGTTGACCAAGGACGTCTATCGTTATTTACAAAAGGTTGGTGACCTTCGCTCAAGTGTC-----ATGAGATGTGCTGA-CCTC------TCTTCAGTGCGTCGAGACCCACAAGGAGTTCAATCTTGCCCTTGCAGTTAAGCATCAAACTATCACAAACGGTCTCAAATACTCTCTGGCGACAGGTAACTGGGGAGATCAGAAAAAATCAATGTCTTCCAAGGCAGGAGTCTCTCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGGCGCGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACTCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCCCTTATGGCGTGCATATCAGTCGGGTCTTACTCCGCGCCCGTTATCGAGTTTTTGGAGGAATGGGGATTGGAGTCATTGGAAGAGAACGCGCACTCGTCAACACCCTGCACAAAAGTTTTCGTGAACGGTGTATGGATGGGTGTGCATCGCGATCCTGCCAATTTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGACGACATTAGCCCAGAAGTGTCAGTTGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACCGATGCGGGACGTGTTTGTCGACCTCTCTTCATCGTCGAGAATCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGTGACGAATACAAATGGGAACATTTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCTGAGGAAGAGGAAACAGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTGCAGCAAAGTGGCGTTGATCCTCACGCGAACGACGGCGAGTTCGATCCCGCAGCTCGATTGAAGGCTGGCACTCACGCACACACATGGACACATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGTGCCAGCATTATTCCCTTCCCTGATCAT------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>GMM6013\_Laccaria\_ohiensis\_COSTA\_RICA\_GMM6013\_GMM6013\_GMM6013\_GMM6013

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCGTCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GTATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATCGC-----------------AGTCAGCTTTCCTTTCATTTCC-AAGACTATGTTTT----T--A-AATACA-CCAAAGCATGTTTAAAGAATGTCATC-AATGGGAAC---TTGTTTCCTA--T--AAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-ACTGAAGT---AGTGAGGTCGGCTCTCCTTAAATGCATTAGTGGAACTTTTGTGGACCATCTA-TTGGTGTGAT-AATTATCTACGTCGTGGAT-GTTAAGCAG-CTTTAT---GAAGTT-CAGCTTCT-AACTGTCCATTATTGACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGTCCCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCATGTTGGCCAGGGATCAA-CCTTGCTTTATTTTTT---GCTTGGCTTACTTTCTGGTCAATGGG-TCAGCATCAATTTTGACTGGTGG-AGAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGTGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTAGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGCTTTCCGCATGCTTTTCCGAAAGTTGACGAAGGATGTTTATCGTTATCTACAAAAGGTTGTTGACCTTCGTTCGAGTGTC-----ATGAGATGTGCTGA-CCTCTCT---TCTTCAGTGCGTCGAGACCCACAAGGAGTTCAACCTTGCCCTTGCAGTTAAGCATCAAACCATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGAGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGGCGCGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACTCATTGGGGTATGGTATGTCCTGCGGAAACCCCTGAAGGTCAAGCCTGTGGTCTTGTGAAGAACCTCGCCCTTATGGCCTGCATATCAGTCGGATCTTACTCCGCGCCCGTTATCGAGTTTTTGGAGGAATGGGGATTGGAGTCATTGGAAGAGAACGCGCACTCATCAACACCCTGCACAAAAGTTTTCGTGAACGGTGTATGGATGGGTGTACATCGCGATCCTGCCAATTTGGTGAAGACRATAAAGAAATTGAGAAGGAAAGACGACATTAGTCCGGAAGTGTCAGTTGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGTGACGAATACAAATGGGAACATCTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCTGAGGAAGAGGAAACAGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACARCAAAGTGGCGTTGATCCTCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGTACTCATGCACACACATGGACACATTGCGAAATCCATCCTAGCATGATTCTTGGCATTTGTGCCAGCATTATTCCTTTCCCTGATCAT----------------------------------------------------------------------CGCGAGCACGCTCTCCTCGCTTTCACCCTCGGTGTGCGGCAACTCATCGTTGCCGTCAACAAGATGGACACCACTAAGGTAAGAAACTTTTCAG-TGATGATTAGGCTTCTTGCACATTCTCATCATCTTA-CGTAGTGGAGCGAGGACCGTTTCAACGAAATCATCAAGGAGACGTCAACCTTCATCAAGAAGGTTGGTTACAACCCCAAGGCCGTTGCCTTTGTCCCTATTTCCGGCTGGCACGGTGACAACATGTTGGAGGAGTCCGCTAAGTACGCAATC--TCGTATTGTCATAG-CGCCCCGTCGCTCATGTTGCACTC-AGCATGCCTTGGTACAAGGGCTGGACCAGGGAGACCAAGGCTGGTCCTGTCAAGGGCAAGACCCTCCTCGATGCTATTGATGCCATTGAGCCCCCCGTCCGACCTTCCGACAAACCCCTCCGTCTTCCCCTCCAGGATGTTTACAAAATTGGCGGTATCGGAACTGTGCCCGTCGGTCGTGTTGAGACTGGTATCATCAAGGCCGGAATGGTCGTCACTTTCGCTCCCTCGAACGTCACAACTGAAGTCAAGTCCGTCGAAATGCATCACGAACAGCTCGAGCAGGGTAACCCCGGTGACAATGTCGGTTTCAACGTCAAGAAYGTGTCAGTGAAAGATATTCGTCGTGGCAACGTGGCCTCTGACTCCAAGAACGATCCCGCCAAGGAAGCGGCCTCTTTCAACGCACAGGTCATCGTCCTGAACCACCCTGGTCAAATTGGTGCTGGTTACGCCCCGGTTCTTGACTGTCACACCGCCCACATCGCCTGCAAGTTTGCTGAGCTCATCGAGAAGATTGATCGTCGTACGGGTAAATCCATTGAAAACTCGCCTAAATTCGTTAAGTCAGGTGACGCCTGCATCGTCAAGCTCGTTCCCAGCAAGCCTATG

>GMM6019\_Laccaria\_major\_COSTA\_RICA\_KU685757\_KU685908\_KU686056\_KU686160

CCTGA-TGTGACTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCGTCGTCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATA----TTAG-GATCGCC--------------CAAGTTGGCTTTCCTTTCATTTCC-AAGACTATGTTTT-------A-TATACA-CCAAAGTATGTTTTGAGAATGTCATC-AATAGGAAC---TTGTTTTCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATCAAA-TTCTCAACCTTTCCAGC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--CTGCAGGCTTC-AT-----T---AATGAGGTTGGCTCTCCTTAAATGCATTAGCGGAACTTTTGTAGACCGTCTA-TTGGTGTGAT-AAATATCTACGCCGTGGAT-GTAAT--------------GAAGTT-CAGCTTCT-AACCGTCC---------TTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGGTGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCACGTCGGCCAGGGATCAA-CCTTGC----TTCTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTATTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTTGAGCATGCTTTCCGCATGCTTTTCCGAAAGTTGACCAAGGACGTCTATCGTTATTTACAAAAGGTTGTTGACCTTCGCTCAAGTGTC-----ATGAGATGTGCTGA-CCTC------TCTTCAGTGCGTCGAGACCCACAAGGAGTTCAATCTTGCCCTTGCAGTTAAGCATCAAACTATCACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGAGATCAGAAAAAATCAATGTCTTCCAAGGCAGGAGTCTCTCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGGCGCGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACTCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCCCTTATGGCGTGCATATCAGTCGGGTCTTACTCCGCGCCCGTTATCGAGTTTTTGGAGGAATGGGGATTGGAGTCATTGGAAGAGAACGCGCACTCGTCAACACCCTGCACAAAAGTTTTCGTGAACGGTGTATGGATGGGTGTGCATCGCGATCCTGCCAATTTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGACGACATTAGCCCAGAAGTGTCAGTTGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACCGATGCGGGACGTGTTTGTCGACCTCTCTTCATCGTCGAGAATCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGTGACGAATACAAATGGGAACATTTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCTGAGGAAGAGGAAACAGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTGCAGCAAAGTGGCGTTGATCCTCACGCGAACGACGGCGAGTTCGATCCCGCAGCTCGATTGAAGGCTGGCACTCACGCACACACATGGACACATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGTGCCAGCATTATTCCCTTCCCTGATCAT----------------------------------------------------------------------CGCGAGCACGCTCTCCTCGCTTTCACCCTCGGTGTGCGGCAACTCATTGTTGCCGTCAACAAGATGGACACCACTAAGGTAAGAAACATTTCAG-TTATAGTTACGCTTCTTGCACATTCTCATCRTCTCA-TGTAGTGGAGCGAGGACCGTTTCAACGAAATCATCAAGGAGACGTCAACCTTCATCAAGAAGGTTGGTTACAACCCCAAGGCTGTTGCCTTTGTCCCTATTTCCGGCTGGCATGGTGACAACATGTTGGAGGAGTCCGCTAAGTAAGCATTC--TCGTATTGTCATGATCGCCCCGTCGCTCATGTTGCACTC-AGCATGCCTTGGTACAAGGGCTGGACCAGGGAGACCAAGGCTGGACCCGTCAAGGGCAAGACCCTCCTCGATGCTATTGATGCCATTGAGCCCCCCGTCCGACCTTCCGACAAACCCCTCCGTCTCCCCCTCCAGGATGTCTACAAAATTGGCGGTATCGGAACTGTGCCCGTCGGTCGTGTTGAGACTGGTATCATCAAGGCCGGAATGGTCGTCACTTTCGCTCCCTCCAACGTCACCACTGAAGTCAAGTCCGTCGAAATGCATCACGAACAGCTCGAGCAGGGTAACCCTGGTGACAATGTCGGTTTCAACGTCAAGAATGTGTCAGTGAAAGATATTCGTCGTGGCAACGTGGCCTCCGACTCCAAGAACGATCCCGCCAAGGAAGCGGCCTCTTTCAACGCACAGGTCATCGTCCTCAACCACCCTGGTCAAATTGGTGCTGGTTACGCCCCGGTTCTCGACTGTCACACCGCCCACATCGCCTGCAAGTTTGCCGAGCTCATTGAGAAGATTGATCGTCGTACGGGTAAATCCATTGAAAACTCGCCTAAATTCGTCAAGTCTGGTGACGCCTGCATCGTCAAGCTCGTTCCCAGCAAGCCTATG

>GMM6020\_Laccaria\_major\_COSTA\_RICA\_GMM6020\_GMM6020\_\_

CCTGA-TGTGACTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCRTCGTCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATA----TTAG-GATCGCC--------------CAAGTTGGCTTTCCTTTCATTTCC-AAGACTATGTTTT-------A-TATACA-CCAAAGTATGTTTTGAGAATGTCATC-AATAGGAAC---TTGTTTTCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCYGAGGAGCATGCCTGTTTGAGTGTCATCAAA-TTCTCAACCTTTCCAGC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--CTGCAGGCTTC-AT-----T---AATGAGGTTGGCTCTCCTTAAATGCATTAGCGGAACTTTTGTAGACCGTCTA-TTGGTGTGAT-AAATATCTACGCCGTGGAT-GTAAT--------------GAAGTT-CAGCTTCT-AACYGTCC---------TTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGGTGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCACGTCGGCCAGGGATCAA-CCTTGC----TTCTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTRTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTTGAGCATGC-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>GMM7173\_Laccaria\_gomezii\_\_GMM7173\_GMM7173\_RPB2\_GMM7173

CCTGA-TGTGACTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCATCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGAAA-CTCGGATT----TTAG-GATTGTCGTGC---TGT---ACAAGTCGACTTTTCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATG-TTATAGAATGTCATC-AATGGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAAC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-TT-----C---ACTGAGGTCAGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT---GAAGTT-CTGCTTCT-AACCGTCC---ATTGACTTGGACAA-----TTTTGACAA--TTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATATGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTTGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCACATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG----TTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTATTTGGGTGAAAAACCCAAGTGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTTCcGCATGCTGTtCcGAAAGTtGACcAaGgACGTTtATCGTTATCTACAAAAGGTTGCTGACTTTCGCTCAAGTGCC-----ATGAGACATGTTGA-CCTCTCT---TCTTCAGTGCGTCGAGACCCACAAGGAGTTCAACCTTGcCCTTGCAGTTAAGCATCAAACCATTACAAACGGCCTCAAATACTCTCTGGCGACAGGTAACTGGGGGGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACATCTCCGTCGGTGTAACACTCCTCTAGGACGCGAAGGCAAGATCGCCAAGCCTCGTCAGTTGCACAACACCCATTGGGGTATGGTGTGCCCCGCGGAAACTCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCCCTTATGGCGTGTATATCAGTCGGGTCTTATTCCGCGCCCGTTATCGAGTTTTTGGAGGAATGGGGATTGGAGTCATTGGAAGAGAACGCACACTCATCAACGCCCTGCACCAAAGTTTTCGTGAACGGTGTATGGATGGGTGTGCATCGCGATCCTGCCAACTTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGACGACATTAGCCCAGAAGTGTCAGTTGTGCGTGACATCCGGGAGAAGGAGTTGAGRTTGTACACCGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGTTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGCGACGAATACAAATGGGAACATTTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCTGAGGAAGAGGAAACGGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGCGTTGATCCTCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTAAAGGCTGGCACYCACGCACACACATGGACACATTGCGAAATCCATCCTAGCATGATTCTTGGCATTTGTGCCAGCATTATTCCTTTCCCTGaTCAT----------------------------------------------------------------------CGCGAGCACGCTCTCCTCGCTTTCACCCTCGGTGTACGGCAACTCATCGTTGCTGTCAACAAGATGGACACCACCAAGGTAAGAAAAGTTTCAC-TTATAGTTAGGCTTCTTCCACATCCTCATCACCTCA-TGCAGTGGAGTGAGGACCGTTTCAACGAAATTATCAAGGAGACGTCAAGCTTCATCAAGAAGGTTGGTTACAACCCGAAGGCCGTTGCCTTTGTTCCTATTTCCGGCTGGCACGGTGACAACATGTTGGAGGAGTCGGTCAAGTAAGTAATC--TCGTATCGTCATTATCGCCCCGTCGCTCATGTGACACTY-AGCATGCCTTGGTTCAAGGGCTGGACCAAGGAGACTAAGGCTGGTGTCGTCAAGGGCAAGACCCTCCTCGATGCTATTGATGCCATTGAGCCCCCCGTCCGACCTTCCGACAAGCCCCTCCGTCTTCCCCTCCAGGACGTCTACAAAATTGGCGGTATCGGAACTGTGCCTGTCGGTCGTGTTGAGACTGGTATCATCAAGGCCGGAATGGTCGTCAACTTCGCTCCCTCCAACGTCACCACTGAAGTCAAGTCCGTCGAAATGCATCATGAACAGCTCGAGCAGGGTAACCCTGGTGACAATGTCGGTTTCAACGTCAAGAACGTGTCAGTGAAGGATATTCGTCGTGGCAACGTGGCCTCCGACTCCAAGAACGATCCCGCCAAGGAAGCGGCCTCTTTCAACGCACAGGTCATCGTCCTCAACCACCCTGGTCAAATTGGTGCTGGTTATGCCCCGGTTCTCGACTGTCACACCGCCCACATTGCCTGCAAGTTCGCCGAGCTCATCGAAAAGATCGATCGTCGTACGGGTAAATCCATTGAAAACTCGCCCAAATTCGTCAAGTCGGGTGACGCCTGCATCGTCAAGCTCGTTCCCAGCAAGCCTATG

>GMM6021\_Laccaria\_gomezii\_\_GMM6021\_\_\_

CCTGA-TGTGACTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCATCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGAAA-CTCGGATT----TTAG-GATTGTCGTGC---TGT---ACAAGTCGACTTTTCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATG-TTATAGAATGTCATC-AATGGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAAC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-TT-----C---ACTGAGGTCAGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT---GAAGTT-CTGCTTCT-AACTGTCC---ATTGACTTGGACAA-----TTTTGACAA--TTGA-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>GMM6022\_Laccaria\_gomezii\_\_KU685644\_\_\_

CCTGA-TGTGACTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCATCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGAAA-CTCGGATT----TTAG-GATTGTCGTGC---TGT---ACAAGTCGACTTTTCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATG-TTATAGAATGTCATC-AATGGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAAC--------T-TTTATTAGTTTGG--TTAGGCTTGGA-CGT-GGGGG--TTGCAGGCTTC-AT-----C---ACTGAGGTCGGCTCTCCTTAAATGTATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT---GAAGTT-CTGCTTCT-AACTGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGA-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>GMM6023\_Laccaria\_ohiensis\_COSTA\_RICA\_GMM6023\_GMM6023\_RPB2\_GMM6023

CCTGA-TGTGGCTGTTAGCTGGCTTTTTCAAAGCATGTGCTCGT-CCGTCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTCTTT-GGATACCTCTCGAGGCAA-CTCGGATT---TTTAG-GATCGCC----------------AGTCGGCTTTCCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGTTTAAAGAATGTTATC-AATAGGAAA---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCT-----------------GAGGTCAGCTCTCCTTAAATACATTAGCGGAACTTTTGTGAACCATCTA-TTGGTGTGAT-AATTATCTACGCTGTGGATGGTAATGCAG-CTTTTT---GAAGTT-CAGCTTCT-AATTGTCG---------TTGGACAA-------------A-TTTGAGAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGGGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCACGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGTCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACACCCGGATCTGACCTTTTGTGACGATTCTGCGGTTGAGCATGCTTTCCGCATGCTTTTCCGAAAGTTGACCAAGGACGTTTATCGTTATCTACAAAAGGTTGCTGACCTTCGCTCAAGTGTC-----ATGAGATGTGCTGA-CCTCTCT---TCTTCAGTGCGTCGAGACCCACAAGGAGTTCAACCTTGCCCTTGCAGTTAAGCATCAAACCATCACAAACGGCCTCAAATATTCCCTGGCGACAGGTAACTGGGGAGATCAGAAAAAGTCAATGTCTTCCAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGGCGCGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACTCATTGGGGTATGGTGTGTCCTGCGGAAACGCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCCCTTATGGCGTGCATATCAGTCGGGTCTTACTCCGCACCCGTTATCGAGTTTTTGGAGGAATGGGGATTGGAGTCATTGGAAGAGAACGCGCACTCATCAACACCCTGCACAAAAGTTTTCGTGAACGGTGTATGGATGGGTGTGCATCGCGATCCTGCCAATTTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGACGACATTAGCCCAGAAGTATCAGTTGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCGCTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGCGACGAATACAAATGGGAACATCTGGTAAAGGGCGGCATCATTGAGTTGCTGGATGCTGAGGAAGAGGAGACAGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGCGTTGATCCTCACGCGAACGATGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCACGCACATACATGGACACATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGTGCCAGCATTATTCCTTtCCCTGATCAT----------------------------------------------------------------------CGCGAGCACGCTCTCCTCGCTTTCACCCTCGGTGTGCGGCAACTCATCGTTGCCGTCAACAAGATGGACACCACTAAGGTAAGAAACAYTTTAG-TTATAGTTAGGCTTCTTGCACATTCTCATCATCTCA-TGTAGTGGAGCGAGGACCGTTTCAACGAAATCATTAAGGAGACGTCAACCTTCATCAAGAAGGTTGGTTACAACCCCAAGGCCGTTGCCTTTGTCCCTATTTCCGGCTGGCACGGTGACAACATGTTGGAGGAGTCCGCTAAGTAAGCATTC--TCGTATTGTCATGATCGCCCCGTCACTCATGTTGCACTC-AGCATGCCTTGGTATAAGGGCTGGACCAGGGAGACCAAGGCTGGTGTCGTCAAGGGCAAGACCCTCCTTGATGCTATTGATGCCATTGAGCCCCCCGTCCGACCTTCCGACAAACCCCTCCGTCTCCCCCTCCAGGATGTCTACAAAATTGGCGGTATCGGAACTGTGCCCGTCGGTCGTGTTGAGACTGGTATCATCAAGGCCGGAATGGTCGTCACTTTTGCTCCCTCCAATGTCACCACTGAAGTCAAGTCCGTCGAAATGCATCACGAACAGCTTGAGCAGGGTAACCCTGGTGACAATGTCGGTTTCAACGTCAAGAACGTGTCAGTGAAGGATATTCGTCGTGGCAACGTGGCCTCTGACTCCAAGAACGATCCCGCCAAGGAAGCGGCCTCTTTCAACGCACAGGTCATCGTCCTCAACCACCCTGGTCAAATTGGTGCTGGTTACGCCCCGGTTCTCGACTGTCACACCGCCCACATCGCCTGCAAGTTTGCCGAGCTCATTGAGAAGATCGATCGTCGTACGGGTAAATCCATTGAAAACTCGCCTAAATTCGTCAAGTCGGGTGACGCCTGCATCGTCAAGCTCGTTCCCAGCAAGCCTATG

>GMM6585\_Laccaria\_sp\_COSTA\_RICA\_KU685647\_KU685791\_KU685933\_

TCTGA-TGTGGCTGTTAGCTGGC-TTTTCGAAGCATGTGCTCGT-CCGTCATCTTT-ATATAT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGAAA-CTCGGATT----TAAG-GATCGC------------------GTTGGCTTTCCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACACCCAAAGTATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--TAAAAACTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----T---ATTGAGGTCAGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-TTTTAT---AAAGTT-CAGCTTCT-AATCGTTC---ATTGACTTGAACAA---TTTTATGACAA-TTTGAGAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----ATTTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAGGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATCAGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGTTTtCCGCAtGcTTTTCcGAAAGTTGACCAAGGACGTtATTcGTTATcTACAAAaGGTtGCTGACcTTtGcTCACGTgCC-----ATGAgATGCGCTAA-CCTCTCT---TcTACAGTgCGTtGAGACCCaCAAGGAGTTCAACCTTGCTCTTGCAGTTAAGCATCAAACCATCACAAACGGCCTCAAaTACTCTCTGGCGACAGGCAACtGGGGGGATCAGAAAAAGTCAATGTCCTCAAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACATCTTCGTCGGTGTAACACTCCTCTAGGGCGTGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACTCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCCTGTGGTCTTGTCAAGAACCTCGCCCTTATGGCGTGTATATCAGTCGGGTCTTACTCTGCGCCCGTTATCGAGTTTTTGGAAGAGTGGGGATTGGAGTCATTGGAAGAGAACGCGCACTCATCAACACCTTGCACAAAAGTTTTTGTGAACGGTGTCTGGATGGGTGTGCATCGCGATCCTGCCAATTTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGACGACATCAGTCCAGAAGTGTCAGTTGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTTAGTAACGGCGTCAATGAGGATGGCGACGAGTACAAATGGGARCATTTGGTAAAGGGTGGCATCATTGAGTTATTGGATGCTGAGGAGGAGGAAACAGTGATGATATCCATGACCCCCGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGTGTTGATCCTCACGCGAACGACGGCGAATTTGATCCAGCAGCTCGATTGAAAGCTGGCACGCACGCACACACATGGACACATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGTGCTAGCATTATTCCTTTCCCTGATCAT------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>SYC109\_Laccaria\_stellata\_PANAMA\_KP877340\_\_\_

CCTGA-TGTGGCTGTTAGCTGGC--TTTTGAAGCATGTGCTCGT-CCATCATCATT-ATCTAT--TCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TGAG-GATCGCTGTAC---TGTGTAACAAGTCAGCTTTCCTTTCATTTCC-AAGACTATGTTTT----TATA-TATACA-CCAAAGTATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--TAAAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTACTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTATCAA-CCTTCCAAC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----T---AGTGGGGTCAGCTCTCCTTAAATGCATTAGTGGAACTTTTGTAGACCATTTA-TTGGTGTGAT-AATTATCTATGCCGTGAAT-GTGAAGCAG-CTTTAT---AAAGTT-CAGCTTCT-AACCGTCC---ATTGGATTGGACAA-----CTTTGACAA-TTTGG-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>SYC702\_Laccaria\_stellata\_PANAMA\_KP877339\_\_\_

-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------TTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--TAAAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTACTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTATCAA-CCTTCCAAC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----T---AGTGGGGTCAGCTCTCCTTAAATGCATTAGTGGAACTTTTGTAGACCATTTA-TTGGTGTGAT-AATTATCTATGCCGTGAAT-GTGAAGCAG-CTTTAT---AAAGTT-CAGCTTCT-AACCGTCC---ATTGGATTGGACAA-----CTTTGACAA-TTTGG-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>DM121\_Laccaria\_squarrosa\_MEXICO\_MF669960\_MF669967\_\_

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCAAAGCATGTGCTCGT-CCGTCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCCA-CTCGGATT--T-TTAG-GATCGCCGTGC---TGT---ACAAGTCGGCTTTCCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGATTAAAGAATGTTATC-AATAGGAAA---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC-------TT-TTTATTGGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----A---AATGAGGTCAGCTCTCCTTAAATGCATTAGCGGAACTTTTGTAGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTAATGCAG-CTTTTT---GAAGTT-CAGCTTCT-AACCGTCCATTATTG--TTGGACAA-----TTTTGAC-A-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGGGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC------TTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATTGGTTGGGATTGAGGAACTCAGCGCGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGAT----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>DM63\_Laccaria\_squarrosa\_TYPE\_MEXICO\_MF669958\_MF669965\_\_

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCAAAGCATGTGCTCGT-CCGTCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCCA-CTCGGATT--T-TTAG-GATCGCCGTGC---TGT---ACAAGTCGGCTTTCCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGATTAAAGAATGTTATC-AATAGGAAA---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC-------TT-TTTATTGGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----A---AATGAGGTCAGCTCTCCTTAAATGCATTAGCGGAACTTTTGTAGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTAATGCAG-CTTTTT---GAAGTT-CAGCTTCT-AACCGTCCATTATTG--TTGGACAA-----TTTTGAC-A-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGGGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGAT----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>DM93\_Laccaria\_squarrosa\_MEXICO\_MF669959\_MF669966\_\_

CCTGA-TGTGGCTGTTAGCTGGC-TTTTCAAAGCATGTGCTCGT-CCGTCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCCA-CTCGGATT--T-TTAG-GATCGCCGTGC---TGT---ACAAGTCGGCTTTCCTTTCATTTCC-AAGACTATGTTTT----T--A-TATACA-CCAAAGTATGATTAAAGAATGTTATC-AATAGGAAA---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC-------TT-TTTATTGGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----A---AATGAGGTCAGCTCTCCTTAAATGCATTAGCGGAACTTTTGTAGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTAATGCAG-CTTTTT---GAAGTT-CAGCTTCT-AACCGTCCATTATTG--TTGGACAA-----TTTTGAC-A-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGGGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGAT----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>VB4678\_Laccaria\_roseoalbescens\_MEXICO\_KJ590509\_KJ590510\_\_

------TGTGGCTGTTAGCTGGCTTTTTTGAAGCAAGTGCTCGT-CCGTCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTATCGAGGCAA-CTCGGATT----TTAG-GATCGCCA--------------ATATTGGCTTTCCTTTCATTTCC-AAGACTATGTTTT----T--A-TTTACACCCAAAGTATGTTCAAAGAATGTTATC-AAAAGGAAC---TTGGTTCCTA--T-GAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCCTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----TTA-ATTGAAGTCAGCTCTCCTTAAATGCATTAGCAGAACTTTTGTTGACTGTCTA-TTGGTGTGAT-AATTATTTACGCCGTGGCT-GTGAAGCAT-TTCTAT---AAAGTT-CAGCTTCTAAACCGTCC---ATTGACTTGGATAA-----TTTTGACAATTTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCATGTTGGCCAGGGATCAA-CCTTGC----TTTTCT---GCTGGGCTTACTTTCTGGTCAATGGG-TCAGCATCAATTTTGGCTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCACATACACTGGTTGGGATTGAGGAACTCAGCATGCCGCAAGGCCGGG---TTTTTAACCACGTACATGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCAAGTGTTTGGGTGAAAAACCCGAGTGCGTAATGAAAGTGAAAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGC-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>PG03\_Laccaria \_roseoalbescens\_MEXICO\_KJ874329\_KJ874332\_\_

CCTGA-TGTGGCTGTTAGCTGGCTTTTTTGAAGCAAGTGCTCGT-CCGTCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTATCGAGGCAA-CTCGGATT----TTAG-GATCGCCA--------------ATATTGGCTTTCCTTTCATTTCC-AAGACTATGTTTT----T--A-TTTACACCCAAAGTATGTTCAAAGAATGTTATC-AAAAGGAAC---TTGGTTCCTA--T-GAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCCTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----TTA-ATTGAAGTCAGCTCTCCTTAAATGCATTAGCAGAACTTTTGTTGACTGTCTA-TTGGTGTGAT-AATTATTTACGCCGTGGCT-GTGAAGCAT-TTCTAT---AAAGTT-CAGCTTCTAAACCGTCC---ATTGACTTGGATAA-----TTTTGACAATTTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCATGTTGGCCAGGGATCAA-CCTTGC----TTTTCT---GCTGGGCTTACTTTCTGGTCAATGGG-TCAGCATCAATTTTGGCTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCACATACACTGGTTGGGATTGAGGAACTCAGCATGCCGCAAGGCCGGG---TTTTTAACCACGTACATGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCAAGTGTTTGGGTGAAAAACCCGAGTGCGTAATGAAAGTGAAAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGC-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>LM5042\_Laccaria \_roseoalbescens\_MEXICO\_KJ874327\_KJ874330\_\_

CCTGA-TGTGGCTGTTAGCTGGCTTTTTTGAAGCAAGTGCTCGT-CCGTCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTATCGAGGCAA-CTCGGATT----TTAG-GATCGCCA--------------ATATTGGCTTTCCTTTCATTTCC-AAGACTATGTTTT----T--A-TTTACACCCAAAGTATGTTCAAAGAATGTTATC-AAAAGGAAC---TTGGTTCCTA--T-GAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCCTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----TTA-ATTGAAGTCAGCTCTCCTTAAATGCATTAGCAGAACTTTTGTTGACTGTCTA-TTGGTGTGAT-AATTATTTACGCCGTGGCT-GTGAAGCAT-TTCTAT---AAAGTT-CAGCTTCTAAACCGTCC---ATTGACTTGGATAA-----TTTTGACAATTTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCATGTTGGCCAGGGATCAA-CCTTGC----TTTTCT---GCTGGGCTTACTTTCTGGTCAATGGG-TCAGCATCAATTTTGGCTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCACATACACTGGTTGGGATTGAGGAACTCAGCATGCCGCAAGGCCGGG---TTTTTAACCACGTACATGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCAAGTGTTTGGGTGAAAAACCCGAGTGCGTAATGAAAGTGAAAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGC-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>LM5099\_Laccaria \_roseoalbescens\_MEXICO\_KJ874328\_KJ874331\_\_

CCTGA-TGTGGCTGTTAGCTGGCTTTTTTGAAGCAAGTGCTCGT-CCGTCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTATCGAGGCAA-CTCGGATT----TTAG-GATCGCCA--------------ATATTGGCTTTCCTTTCATTTCC-AAGACTATGTTTT----T--A-TTTACACCCAAAGTATGTTCAAAGAATGTTATC-AAAAGGAAC---TTGGTTCCTA--T-GAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCCTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----TTA-ATTGAAGTCAGCTCTCCTTAAATGCATTAGCAGAACTTTTGTTGACTGTCTA-TTGGTGTGAT-AATTATTTACGCCGTGGCT-GTGAAGCAT-TTCTAT---AAAGTT-CAGCTTCTAAACCGTCC---ATTGACTTGGATAA-----TTTTGACAATTTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCATGTTGGCCAGGGATCAA-CCTTGC----TTTTCT---GCTGGGCTTACTTTCTGGTCAATGGG-TCAGCATCAATTTTGGCTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCACATACACTGGTTGGGATTGAGGAACTCAGCATGCCGCAAGGCCGGG---TTTTTAACCACGTACATGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCAAGTGTTTGGGTGAAAAACCCGAGTGCGTAATGAAAGTGAAAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGC-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>VB4677\_Laccaria \_roseoalbescens\_MEXICO\_KJ590508\_KJ590511\_\_

-------------------------------------------------------------------------------TTTTGTAGTC-TT-GGATACCTATCGAGGCAA-CTCGGATT----TTAG-GATCGCCA--------------ATATTGGCTTTCCTTTCATTTCC-AAGACTATGTTTT----T--A-TTTACACCCAAAGTATGTTCAAAGAATGTTATC-AAAAGGAAC---TTGGTTCCTA--T-GAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCCTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----TTA-ATTGAAGTCAGCTCTCCTTAAATGCATTAGCAGAACTTTTGTTGACTGTCTA-TTGGTGTGAT-AATTATTTACGCCGTGGCT-GTGAAGCAT-TTCTAT---AAAGTT-CAGCTTCTAAACCGTCC---ATTGACTTGGATAA-----TTTTGACAATTTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCATGTTGGCCAGGGATCAA-CCTTGC----TTTTCT---GCTGGGCTTACTTTCTGGTCAATGGG-TCAGCATCAATTTTGGCTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCACATACACTGGTTGGGATTGAGGAACTCAGCATGCCGCAAGGCCGGG---TTTTTAACCACGTACATGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCAAGTGTTTGGGTGAAAAACCCGAGTGCGTAATGAAAGTGAAAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGC-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>GMM6016\_Laccaria\_ohiensis\_COSTA\_RICA\_GMM6016\_GMM6016\_GMM6016\_GMM6016

-CTGA-TGTGGCTGTTAGCTGGCTTTTTTGAAGCATGTGCTCGT-CCGTCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTATCGAGGCAA-CTCGGATT----TTAG-GATCGCCA--------------ATATTGGCTTTCCTTTCATTTCC-AAGACTAYGTTTT----T--A-TTTACACCCAAAGTATGTTCAAAGAATGTTATC-AAAAGGAAC---TTGKTTCCTA--T-GAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCCTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----TTA-ATTGAAGTCAGCTCTCCTTAAATGCATTAGCARAACTTTTGTTGACCGTCTA-TTGGTGTGAT-AATTATTTACGCCGTGGAT-GTGAAGCAT-TTCTAT---AAAGTT-CAGCTTCTAAACCGTCC---RTTGACTTGGACAA-----TTTTGAC--------AAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCTGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCACGTTGGCCAGGGATCAA-CCTTGC----TTTTCT---GCTGGGCTTACTTTCTGGTCAATGGG-TCAGCATCAATTTTGGCTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCACATACACTGGTTGGGATTGAGGAACTCAGCATGCCGCAAGGCCGGG---TTTTTAACCACGTACATGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCAAGTGTTTGGGTGAAAAACCCGAGTGCGTAATGAAAGTGAAAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGCTTTCCGCATGCTTTTTCGAAAGTTGACCAAGGACGTTTATCGTTATCTACAAAAGGTTGCTGACCTTYGCTCAAGTGCC-----ATGAGATGTGCTGA-CCTCTCT---TCTTCAGTGCGTCGAGACCCACAAGGAGTTCAACCTTGCCCTTGCAGTTAAGCATCAAACTATCACAAACGGCCTCAAATACTCTCTGGCGACAGGYAACTGGGGAGATCAAAAAAAGTCAATGTCTTCTAAGGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCATCCACTCTGTCACATCTTCGTCGGTGTAACACTCCYCTAGGGCGCGAAGGCAAGATCGCCAAACCTCGTCAGTTGCACAACACTCATTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCCTGTGGTCTGGTCAAGAACCTCGCCCTTATGGCKTGCATATCAGTCGGGTCTTACTCCGCGCCCGTTATCGAGTTTTTGGAGGAATGGGGATTGGAGTCATTGGAAGAGAACGCGCACTCATCAACACCTTGCACAAAAGTTTTTGTGAACGGTGTATGGATGGGTGTGCATCGCGATCCTGCCAATTTGGTGAAGACGATAAAGAAATTGAGAAGGAAAGACGACATTAGCCCAGAAGTGTCAGTTGTGCGAGACATCAGGGAGAAGGAATTGAGGTTGTACACCGATGCTGGACGTGTTTGTCGACCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAATGGCCTCAACGATGATGGTGACGAATACAAATGGGAACATCTGGTAAAAGGTGGTATCATTGAGTTACTGGATGCTGAGGAAGAGGAAACAGTGATGATATCCATGACCCCTGAAGATCTtGAAAaTtCTCGCcTACAGCAAaGTGGTGtTGATCCTCACGCGAaCGACGGCGAGTTtGATCcAGCAGCTCGATtGAaGgCTGgCACtCACGCaCACACATGgACACATtGCGAaaTYCATCcTAGCATGATtCTtGgCATttGTGCCAGCATtATtCcTttccCTgatcac----------------------------------------------------------------------CGYGAGCACGCTCTCCTCGCTTTCACCCTCGGTGTGCGGCAACTCATCGTTGCCGTCAACAAGATGGACACCACTAAGGTAAGAAACATATCAG-TTATAGTTAAGCTTCTTGCACATTCCCCTCATCTCA-TGTAGTGGAGCGAGGACCGTTTCAACGAAATCATCAAGGAGACGTCAACCTTCATCAAGAAGGTTGGTTACAACCCCAAGGCCGTTGCCTTTGTCCCTATTTCCGGCTGGCACGGTGACAACATGTTGGAGGAGTCCGCYAAGTCAGCA-TC--TCGTATTGTCATGATTGCCCCGTCGCTCATATTGCACTC-AGCATGCCTTGGTACAAGGGCTGGACCAAGGAAACCAAGGCTGGTGTCGTCAAGGGCAAGACCCTCCTCGATGCTATTGATGCCATTGAGCCACCTGTCCGACCTTCCGACAAACCCCTCCGTCTCCCCCTCCAGGATGTCTACAAAATTGGCGGTATCGGAACTGTGCCCGTCGGTCGTGTTGAGACTGGTATCATCAAGGCCGGAATGGTCGTCACTTTCGCTCCCTCCAACGTTACAACTGAAGTCAAGTCCGTTGAAATGCATCACGAACAGCTCGAGCAGGGTAACCCTGGTGACAATGTCGGTTTCAACGTCAAGAACGTGTCAGTGAAGGACATTCGTCGTGGTAACGTGGCCTCCGACTCCAAGAACGATCCCGCCAAGGAAGCGGCCTCTTTCAACGCACAGGTCATCGTCCTCAACCACCCCGGTCAAATTGGTGCTGGTTACGCCCCGGTTCTTGACTGTCACACCGCCCACATTGCCTGTAAGTTTGCCGAGCTCATCGAGAAGATCGATCGTCGTACGGGTAAATCCATTGAAAACTCGCCTAAATTCGTCAAGTCGGGTGACGCCTGCATCGTCAAGCTTGTTCCCAGCAAGCCTATG

>Corrales\_27\_Laccaria\_stellata\_PANAMA\_ITS\_28S\_RPB2\_

------------------------------------GTGCTCGT-CCATCATCATT-ATCTAT--TCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TGAG-GATCGCTGTAC---TGTGTAACAAGTCAGCTTTCCTTTCATTTCC-AAGACTATGTTTT--TAT--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--TAAAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTACTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTATCAA-CCTTCCAAC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----T---AGTGGGGTCAGCTCTCCTTAAATGCATTAGTGGAACTTTTGTAGACCATTTA-TTGGTGTGAT-AATTATCTATGCCGTGAAT-GTGAAGCAG-CTTTAT---AAAGTT-CAGCTTCT-AACCGTCC---ATTGGATTGGACAA-----CTTTGACAA-TTTGGAAGCTCAAATTTGAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGCTTT-GTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATACTTGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGTGTTGGCCAGGGATCAA-CCTTGCTTA-TTTTTTTTTGCTTGGCTTACTTTCTGGTCAATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTTGGATGTGTTATAGCCTTTGTTCACATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTCAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTTGAGCATGC------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------AATACAAGTGGGAACATTTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCTGAGGAAGAGGAAACAGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGCGTTGATCCTCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCACGCACACACATGGACACATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGTGCCAGCATTATTCCTTTCCCTGATCAT------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>Corrales\_576\_Laccaria\_stellata\_PANAMA\_ITS\_\_\_

-----------------------------GAAGCATGTGCTCGT-CCATCATCATT-ATCTAT--TCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TGAG-GATCGCTGTAC---TGTGTACCAAGTCAGCTTTCCTTTCATTTCC-AAGACTATGTTTT--TAT--A-TATACA-CCAAAGTATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--TAAAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTACTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTATCAA-CCTTCCAAC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----T---AGTGGGGTCAGCTCTCCTTAAATGCATTAGTGGAACTTTT-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>Corrales\_467\_Laccaria\_PAN1\_PANAMA\_ITS\_\_\_

------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------CCAAAGTATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----T---AGTGAGGTCGGCTCTCCTTAAATGCATTAGTGGAACTTTTGTGAACCATCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTTAT--GA------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>Corrales\_547\_Laccaria\_PAN1\_PANAMA\_ITS\_\_\_

--------------------------------------------------------------------------GCACATTTTGTAGTC-TT-GGATACCTCTCGAGGCAA-CTCGGATT----TTAG-GATCGCT---------------AAGTCAGCTTTCCTTTCATTTCC-AAGACTATGTTTT-----TTA-TATACA-CCAAAGTATGTTTAAAGAATGTCATN-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AN-----T---AGTGAGGTCGGCTCTCCTTAAATGCATTAGTGGAACTTTTGTGAACCATCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTT-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>Corrales\_423\_Laccaria\_PAN1\_PANAMA\_ITS1F\_\_\_

---------------------------------------------------------------------------------------------------------------------------------------T---------------AAGTCAGCTTTCCTTTCATTTCC-AAGACTATGTTTT----TTTA-TATACA-CCAAAGTATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----T---AGTGA----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>Corrales\_595\_Laccaria\_PAN1\_PANAMA\_ITS4B\_28S\_6f\_EF1a

-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------GGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----T---AGTGAGGTCGGCTCTCCTTAAATGCATTAGTGGAACTTTTGTGAACCATCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTTAT--GAAGTT-CAGCTTCT-AACCGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTT-GGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGCTTT-GTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCCTGC----ATTTTT---GCTTGGCTTACTTTCTGGTCAACGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGTGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGT------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------AGGAAACAGTGATGATATCCATGACTCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGTGTTGATCCTCACGCGAACGATGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCATGCACACACATGGACACATTGCGAAATCCATCCTAGCATGATTCTTGGCATTTGTGCTAGCATTATTCCTTTCCCAGATCAT-----------------------------------------------------------------------------------------------------------------------TTGCCGTCAACAAGATGGATACCACTAAGGTAAGAAACTTTTCAG-TGATAGTTAGGCCTCTTGCACATTCTCATCATCTTAT-GTAGTGGAGCGAGGACCGTTTCAACGAAATCATCAAGGAGACGTCAACCTTCATCAAGAAGGTTGGTTACAACCCCAAGGCCGTTGCCTTTGTCCCTATTTCCGGCTGGCACGGTGACAACATGTTGGAGGAGTCCTCTAAGTAAGCAATC--TCGTGTTGTCATAGT-GTCCCGTCGCTCATGTTGCACAC-AGCATGCCTTGGTACAAGGGTTGGACCAAGGAGACCAAGGCTGGTGTTGTCAAGGGCAAGACCCTCCTCGATGCTATTGATGCCATTGAGCCTCCCGTCCGACCTTCCGACAAACCCCTCCGTCTCCCCCTCCAGGATGTCTACAAAATTGGCGGTATCGGAACTGTGCCCGTCGGCCGTGTTGAGACTGGCATCATCAAAGCCGGAATGGTCGTCACTTTCGCTCCCTCGAACGTCACAACTGAAGTCAAGTCCGTCGAAATGCATCACGAACAGCTCGAGCAGGGTAACCCTGGTGACAATGTCGGTTTCAACGTCAAGAACGTGTCGGTGAAGG-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>Corrales\_646\_Laccaria\_PAN2\_PANAMA\_ITS\_28S\_\_2218R

CCTGA-TGTGGCTGTTAGCTGGC-TTTTTGAAGCATGTGCTCGTCCCGTCATCTTT-ATCTCT--CCA-CCTGTGAACATTTTGTAGTC-TT-GAATACCTCTTGAGGCAA-CTCGGGTTAGGGTTAG-GATTGCCGTGC---TGT---ACAAGCAGGCTTTCTTATCATTTTC-AAGACTATGTTTT---TTTAA-TATACA-CCAAAGCATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGTGGGCTTC-AT-----T---ATTGAGGTCAGCTCTCCTTAAATGCATTAGCAGAACTTTTGTGGACTGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-ATTTAT---GAAGTT-CAGCTTCC-AACNGTCC---ATTGACATGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGGGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGCTTT-GTGATGTGCTCTCGAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCAAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTAGGGAACATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGT------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------TTCGACCTTCCGACAAACCCCTCCGTCTCCCCCTCCAGGATGTCTACAAAATTGGTGGTATTGGAACTGTGCCTGTCGGTCGTGTTGAGACTGGTATCATCAAGGCCGGAATGGTCGTCACTTTCGCTCCCTCCAACGTCACCACTGAAGTCAAGTCCGTCGAAATGCATCACGAACAGCTCGAACAGGGTAACCCTGGTGACAATGTCGGTTTCAACGTCAAGAACGTGTCAGTGAAGGATATTCGTCGTGGCAACGTGGCCTCTGACTCCAAGAACGATCCCGCCAAGGAAGCGGCTTCTTTCAACGCACAGGTCATCGTCCTCAACCACCCTGGTCAAATTGGTGCTGGTTACGCCCCAGTTCTCGACTGTCACACCGCCCACATCGCCTGCAAGTTCGCCGAGCTCATCGAGAAGATCGATCGTCGTACGGGTAAATCCATTGAAAA----------------------------------------------------------------

>Corrales\_543\_Laccaria\_PAN2\_PANAMA\_ITS\_28S\_RPB2\_EF1a

CCTGA-TGTGGCTGTTAGCTGGC-TTTTTGAAGCATGTGCTCGTCCCGTCATCTTT-ATCTCT--CCA-CCTGTGAACATTTTGTAGTC-TT-GAATACCTCTTGAGGCAA-CTCGGGTTAGGGTTAG-GATTGCCGTGC---TGT---ACAAGCAGGCTTTCTTATCATTTTC-AAGACTATGTTTT--TTTTAA-TATACA-CCAAAGCATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGTGGGCTTC-AT-----T---ATTGAGGTCAGCTCTCCTTAAATGCATTAGCAGAACTTTTGTGGACTGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-ATTTAT---GAAGTT-CAGCTTCC-AACCGTCC---ATTGACATGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGGGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGCTTT-GTGATGTGCTCTCGAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCAAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTAGGGAACATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGT--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------AGCCCGGAAGTGTCAGTTGTGCGAGACATCAGGGAGAAGGAATTGAGGCTGTACACCGATGCTGGACGTGTTTGTCGGCCACTCTTCATCGTCGAGAACCAACAGCTGGCACTTCAGAAGAAGCACGTCAAATGGCTCAGTAACGGCCTCAACGATGATGGCGATGAGTACAAATGGGAACATCTGGTAAAGGGTGGCATCATCGAGTTACTGGATGCTGAGGAAGAGGAAACGGTGATGATATCTATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGAAAAGTGGTGTTGATCCTCATGCAAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCACGCACACACATGGACACATTGCGAAATTCATCCCAGCATGATTCTTGGTATTTGCGCCAGCATTATTCCTTTCCCTGATCAT---------------------------------------------------------------------------------------------------------------------------------------------------------AAACTTTTGAC-TTATAGTTAGGCTTCTTTCACATTCTCATCATCTCAT-GTAGTGGAGTGAGGACCGTTTCAACGAAATCATCAAGGAGACGTCAACCTTCATCAAGAAGGTTGGCTACAACCCCAAGGCCGTTGCATTTGTCCCTATTTCCGGCTGGCACGGTGACAACATGTTGGAGGAATCCGCTAAGTGAGCATTC--TCGCATCGTCATGGTCGCCCC-TCGCTCATGTTGTACTC-AGCATGCCTTGGTACAAGGGCTGGACCAAGGAGACCAAGGCTGGTGTCGTCAAGGGCAAGACCCTCCTTGATGCTATTGATGCCATTGAGCCCCCCGTTCGACCTTCCGACAAACCCCTCCGTCTCCCCCTCCAGGATGTCTACAAAATTGGTGGTATTGGAACTGTGCCTGTCGGTCGTGTTGAGACTGGTATCATCAAGGCCGGAATGGTCGTCACTTTCGCTCCCTCCAACGTCACCACTGAAGTCAAGTCCGTCGAAATGCATCACGAACAGCTCGAGCAGGGTAACCCTGGTGACAATGTCGGTTTCAACGTCAAGAACGTGTCAGTGAAGGATATTCGTCGTG-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>Corrales\_457\_Laccaria\_PAN2\_PANAMA\_ITS\_\_\_

CCTGA-TGTGGCTGTTAGCTGGC-TTTTTGAAGCATGTGCTCGTCCCGTCATCTTT-ATCTCT--CCA-CCTGTGAACATTTTGTAGTC-TT-GAATACCTCTTGAGGCAA-CTCGGGTTAGGGTTAG-GATTGCCGTGC---TGT---ACAAGCAGGCTTTCTTATCATTTTC-AAGACTATGTTTT--TTTTAA-TATACA-CCAAAGCATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGTGGGCTTC-AT-----T---ATTGAGGTCAGCTCTCCTTAAATGCATTAGCAGAACTTTTGTGGACTGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-ATTTAT---GAAGTT-CAGCTTCC-AACCGTCC---ATTGACATGGACAA-----TTTTGACNA-TTTGA-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>Corrales\_571\_Laccaria\_PAN2\_PANAMA\_ITS\_28S\_\_

CCTGA-TGTGGCTGTTAGCTGGC-TTTTTGAAGCATGTGCTCGTCCCGTCATCTTT-ATCTCT--CCA-CCTGTGAACATTTTGTAGTC-TT-GAATACCTCTTGAGGCAA-CTCGGGTTAGGGTTAG-GATTGCCGTGC---TGT---ACAAGCAGGCTTTCTTATCATTTTC-AAGACTATGTTTT--TTTTAA-TATACA-CCAAAGCATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCNAGC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GG------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------T-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGGGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGCTTT-GTGATGTGCTCTCGAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCAAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTAGGGAACATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGT-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>Corrales\_397\_Laccaria\_PAN2\_PANAMA\_ITS\_\_\_

CCTGA-TGTGGCTGTTAGCTGGC-TTTTTGAAGCATGTGCTCGTCCCGTCATCTTT-ATCTCT--CCA-CCTGTGAACATTTTGTAGTC-TT-GAATACCTCTTGAGGCAA-CTCGGGTTAGGGTTAG-GATTGCCGTGC---TGT---ACAAGCAGGCTTTCTTATCATTTTC-AAGACTATGTTTT--TTTTAA-TATACA-CCAAAGCATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGTGGGCTTC-AT-----T---ATTGAGGTCAGCTCTCCTTAAATGCATTAGCAGAACTTTTGTGGACTGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-ATTTAT---GAAGTT-CAGCTTCC-AACCGTCC---ATTGACATGGACAA-----TTTTGACAA-TTTGA-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>Corrales\_262\_Laccaria\_PAN2\_PANAMA\_ITS\_\_\_

CCTGA-TGTGGCTGTTAGCTGGC-TTTTTGAAGCATGTGCTCGTCCCGTCATCTTT-ATCTCT--CCCACCTGTGAACATTTTGTAGTC-TT-GAATACCTCTKGAGGCAA-CTCGGGTTAGGGTTAG-GATTGCCGTGC---TGT---ACAASCAGGCTTTCTTATCATTTTC-AARACTATGTTTT--TTTTAA-TATACA-CCAAAGCATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAKTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGTGGGCTTC-AT-----T---ATTGAGGTCAGCTCTCCTTAAATGCATTAGCAGAACTTTTGTGGACTGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-ATTTAT---GAAGTT-CAGCTTCC-AACCGTCC---ATTGACATGGACAA-----TTTTGACAA-TTTGA-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>Ovrebo5293\_Laccaria\_PAN2\_PANAMA\_ITS\_\_\_

------------------------------------------------------------------------------------------TT------------GAGGCAA-CTCGGGTTAGGGTTAG-GATTGCCGTGC---TGT---ACAAGCAGGCTTTCTTATCATTTTC-AAGACTATGTTTT--TTTTAA-TATACA-CCAAAGCATGTTTAAAGAATGTCATC-AATAGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--TTAGGCTTGGA-TGT-GGGGG--TTGTGGGCTTC-AT-----T---ATTGAGGTCAGCTCTCCTTAAATGCATTAGCAGAACTTTTGTGGACTGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-ATTTAT---GAAGTT-CAGCTTCC-AACCGTCC---ATTGACATGGACAA-----TTTTGACAA-TTTGA-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>Corrales\_268\_Laccaria\_PAN3\_PANAMA\_ITS\_28S\_6F\_EF1a

------------------------------------------------TCATTTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATAACCCTCGAGGCAA-CTCGGATT----TTTG-GATCGCTGTGC---TGT---ACAAGTCGGCTTTCCTTTCATTTCC-AAGACTATGTTTT------TA-TACACA-CCAATGTATGTTTAAAGAATGTCATC-AATGGGAAC---TTGTTTCCTA--T-AAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCTTGG--TGAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----C---AATGAGGTCAGCTCTCCTTAAATGCATTAGTGGAACTTTTGTTGACCATCTA-TTGGTGTGAT-AACTATCTACGCCGTGGAT-GTAAAGCAA-CTTTAT---GAAGTT-CAGCTTCT-AACCGTCC---ATTAGCTTGGACAC-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGCTTT-GTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGTGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTTCTGGTCAATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGCTCAAAGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCACATACATTAGTTGGGATTGAGGAACTCAGCATGCCGCAAGGCCGGG---TTTTTAACCACGTACATGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTTGAGCATGC------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------AATACAAGTGGGAACATTTGGTAAAGGGTGGCATCATTGAGTTACTGGATGCTGAGGAAGAGGAAACAGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAAAGTGGCGTTGATCCTCACGCGAACGACGGCGAGTTTGATCCAGCAGCTCGATTGAAGGCTGGCACTCACGCACACACATGGACACATTGCGAAATTCATCCTAGCATGATTCTTGGCATTTGTGCCAGCATTATTCCTTTCCCTGATCAT-------------------------------------------------------------------------------------------------------------------------------AACAAGATGGACACCACTAAGGTAAGAAACATATCAG-TTATAGTTAAGCTTTTTGCGCATTCTCATCATCTCAT-GTAGTGGAGCGAGGACCGTTTCAACGAAATCATCAAGGAGACGTCAACCTTCATCAAGAAGGTTGGTTACAACCCTAAGGCCGTTGCCTTTGTCCCTATTTCCGGCTGGCACGGTGACAACATGTTGGAGGAGTCCGCTAAGTAAGCATTC--TCGTATTGTCATGACCGCCCCGTCGCTCATGTTGCACTC-AGCATGCCTTGGTACAAGGGCTGGACCAAGGAGACAAAGGCTGGTGTTGTCAAGGGCAAGACCCTCCTTGATGCTATTGATGCCATTGAGCCACCTGTCCGACCTTCCGACAAACCCCTCCGTCTCCCCCTCCAGGATGTCTACAAAATTGGCGGTATCGGAACTGTGCCCGTCGGTCGTGTTGAGACTGGTATCATCAAGGCCGGAATGGTTGTCACTTTCGCTCCCTCCAACGTTACAACTGAAGTCAAGTCCGTCGAAATGCATCACGAACAGCTCGAGCAGGGCAACCCTGGTGACAATGTCGGTTTCAACGTCAAG---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>Corrales\_25\_Laccaria\_PAN4\_PANAMA\_ITS\_\_\_

-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------CAAAGTATGTTTAAAGAATGTAATCTAATAGGAAC---TTGTTTGCC-TAT-AAAATTATACAACTTTCAGCAATGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTATCAACCTTTCCAGC--------T-TCTGTT-----GG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----T---AATGAGGTCAGCTCTCCTTAAATGTATTAGCAGAACTTTTGTGGACTGTCTA-TTGGTGTGAT-AATTATCTATGCCGTGG---------CAG-CTTTAATATAAAGTT-CAGCTTCT-AACTGTCT---ATT-ACTG--AC--------TTTGACAA-TCTGA-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>Corrales\_74\_Laccaria\_PAN4\_PANAMA\_ITS4B\_\_\_

----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------TCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTATCAACCTTTCCAGC--------T-TCTGTT-----GG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----T---AATGAGGTCAGCTCTCCTTAAATGTATTAGCAGAACTTTTGTGGACTGTCTA-TTGGTGTGAT-AATTATCTATCCCGTGG---------CAG-CTTTAATATAAAGTT-CAGCTTCT-AACTGTCT---ATT-ACTG--AC--------TTTGACAA-TCTGA-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>Corrales\_75\_Laccaria\_PAN4\_PANAMA\_ITS4B\_\_\_

----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------ACTTTCAGCAATGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTATCAACCTTTCCAGC--------T-TCTGTT-----GG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----T---AATGAGGTCAGCTCTCCTTAAATGTATTAGCAGAACTTTTGTGGACTGTCTA-TTGGTGTGAT-AATTATCTATCCCGTGG---------CAG-CTTTAATATAAAGTT-CCGCTTCT-AACTGTCT---ATT-ACTG--AC--------TTTGACAA-TCTGA-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>Corrales\_274\_Laccaria\_roseoalbescens2\_PANAMA\_ITS\_LROR\_\_EF1a

---------------------------------------------------------------------------------------------GGATACCTATCGAGGCAA-CTCGGATT----TTAG-GATCGCC---------------AAATTGGCTTTCCTTTCATTTCC-AAGACTATGTTCT------TA-TTTACACCCAAAGTATGTTCAAAGAATGTTATC-AAAAGGAAC---TTGGTTCCTA--T-GACATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAATTTCTCAA-CCTTCCAGC--------T-TTTATTAGCCTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----TTA-ATTGAGGTCAGCTCTCCTTAAATGCATTAGCAGAACTTTTGTTGACCGTCTA-TTGGTGTGAT-AATTATTTACGCCGTGGAT-GTGAAGCAT-TTTTAT---AAAGTT-CAGCTTCT-AATCGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGC-TTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCACGTTGGCCAGGGATCAA-CCTTGC----TTTTCT---GCTGGGCTTACTTTCTGGTCAATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCACATACATTGGTTGGGATTGAGGAACTCAGCATGCCGCAAGGCCGGG---TTTTTAACCACGTACATGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCAAGTGTTTGGGTGAAAAACCCGAGTGCGTAATGAAAGTGAAAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGA-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------ACTCGCGAGCACGCTCTCCTCGCTTTCACCCTCGGTGTGCGGCAACTCATCGTTGCCGTCAACAAGATGGACACCACTAAGGTAAGAAACATATCAG-TTATAGTTAAGCTTCTTGCACATTCCCCTCATCTCAT-GTAGTGGAGCGAGGACCGTTTCAACGAAATCATCAAGGAGACGTCAACCTTCATCAAGAAGGTTGGTTACAACCCCAAGGCCGTTGCCTTTGTCCCTATTTCCGGCTGGCACGGTGACAACATGTTGGAGGAGTCCGCTAAGTCAGCATC---TCGTATTGTCATGATTGCCCCGTCGCTCATATTGCACTC-AGCATGCCTTGGTACAAGGGCTGGACCAAGGAAACCAAGGCTGGTGTCGTCAAGGGCAAGACCCTCCTCGATGCTATTGATGCCATTGAGCCACCTGTCCGACCTTCCGACAAACCCCTCCGTCTCCCCCTCCAGGATGTCTACAAAATTGGCGGTATCGGAACTGTGCCCGTCGGTCGTGTTGAGACTGGTATCATCAAGGCCGGAATGGTCGTCACTTTCGCTCCCTCCAACGTTACAACTGAAGTCAAGTCCGTCGAAATGCATCACGAACAGCTCGAGCAGGGTAACCCTGGTGATAATGTCGGTTTCAACGTCAAGAACGTGTCAGTGAAGGACATTCGTCGTGGTA--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>Corrales\_70\_Laccaria\_roseoalbescens2\_PANAMA\_ITS\_28S\_\_EF1a

----------------AGCTGGCTTTTTTGAAGCATGTGCTCGT-CCGTCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTATCGAGGCAA-CTCGGATT----TTAG-GATCGCC---------------AAATTGGCTTTCCTTTCATTTCC-AAGACTATGTTCT------TA-TTTACACCCAAAGTATGTTCAAAGAATGTTATC-AAAAGGAAC---TTGGTTCCTA--T-GAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAATTTCTCAA-CCTTCCAGC--------T-TTTATTAGCCTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----TTA-ATTGAGGTCAGCTCTCCTTAAATGCATTAGCAGAACTTTTGTTGACCGTCTA-TTGGTGTGAT-AATTATTTACGCCGTGGAT-GTGAAGCAT-TTTTAT---AAAGTT-CAGCTTCT-AATCGTCC---ATTGACTTGGACAA-----TTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGCTTT-GTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCACGTTGGCCAGGGATCAA-CCTTGC----TTTTCT---GCTGGGCTTACTTTCTGGTCAATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCACATACATTGGTTGGGATTGAGGAACTCAGCATGCCGCAAGGCCGGG---TTTTTAACCACGTACATGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCAAGTGTTTGGGTGAAAAACCCGAGTGCGTAATGAAAGTGAAAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGC----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------ACACCACTAAGGTAAGAAACATATCAG-TTATAGTTAAGCTTCCTGCACATTCCC-TCATCTCAT-GTAGTGGAGCGAGGACCGTTTCAACGAAATCATCAAGGAGACGTCAACCTTCATCAAGAAGGTTGGTTACAACCCCAAGGCCGTTGCCTTTGTCCCTATTTCCGGCTGGCACGGTGACAACATGTTGGAGGAGTCCGCTAAGTCAGCATC---TCGTATTGTCATGATTGCCCCGTCGCTCATATTGCACTC-AGCATGCCTTGGTACAAGGGCTGGACCAAGGAAACCAAGGCTGGTGTCGTCAAGGGCAAGACCCTCCTCGATGCTATTGATGCCATTGAGCCACCTGTCCGACCTTCCGACAAACCCCTCCGTCTCCCCCTCCAGGATGTCTACAAAATTGGCGGTATCGGAACTGTGCCCGTCGGTCGTGTTGAGACTGGTATCATCAAGGCCGGAATGGTCGTCACTTTCGCTCCCTCCAACGTTACAACTGAAGTCAAGTCCGTCGAAATGCATCACGAACAGCTCGAGCAGGGTAACCCTGGTGATAATGTCGGTTTCAACGTCAAGAACGTGTCAGTGAAGGACATTCGTCGTGGTAACGTGGCCTCCGACTCCAAGAACGATCCCGCCAAGGAAGCGGCCTCTTTCAACGCACAGGTCATCGTCCTCAACCACCCCGGTCAAATTGGTGCTGGTTACGCCCCGGTTCTTGACTGTCACACCGCCCACATTGCCTGTAAGTTTGCCGAGCTCATCGAGAAGATC---------------------------------------------------------------------------------------------

>Ovrebo5332\_Laccaria\_roseoalbescens1\_PANAMA\_ITS\_28S\_\_EF1a

----A-TGTGGCTGTTAGCTGGCTTTTTTGAAGCATGTGCTCGT-CCGTCATCTTT-ATCTCT--CCA-CCTGTGCACATTTTGTAGTC-TT-GGATACCTATCGAGGCAA-CTCGGATT----TTAG-GATCGCCA--------------ATATTGGCTTTCCTTTCATTTCC-AAGACTATGTTTT------TA-TTTACACCCAAAGTATGTTCAAAGAATGTTATC-AAAAGGAAC---TTGGTTCCTA--T-GAAATTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAA-CCTTCCAGC--------T-TTTATTAGCCTGG--TTAGGCTTGGA-TGT-GGGGG--TTGCAGGCTTC-AT-----TTA-ATTGAAGTCAGCTCTCCTTAAATGTATTAGCAGAACTTTTGTTGACCGTCTA-TTGGTGTGAT-AATTATTTACGCCGTGGAT-GTGAAGCAT-TTCTAT---AAAGTT-CAGCTTCTAAACCGTCC---GTTGACTTGGACAA-----TTTTGACAATTTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGCTTT-GTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCACGTTGGCCAGGGATCAA-CCTTGC----TTTTCT---GCTGGGCTTACTTTCTGGTCAATGGG-TCAGCATCAATTTTGGCTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCACATACACTGGTTGGGATTGAGGAACTCAGCATGCCGCAAGGCCGGG---TTTTTAACCACGTACATGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCAAGTGTTTGGGTGAAAAACCCGAGTGCGTAATGAAAGTGAAAAGTTGAGATCCCTGTCGTGGGGAGCATTGACGCCCGGATCTGACCTTTTGTGACGATTCTGCGGTAGAGCATGC----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------CAG-TTATAGTTAAGCTTCTTGCACATTCCCCTCATCTCAT-GTAGTGGAGCGAGGACCGTTTCAACGAAATCATCAAGGAGACGTCAACCTTCATCAAGAAGGTTGGTTACAACC--AAGGCCGTTGCCTTTGTCCCTATTTCCGGCTGGCACGGTGACAACATGTTGGAGGAGTCCGCCAAGTCAGCATC---TCGTATTGTCATGATTGCCCCGTCGCTCATATTGCACTC-AGCATGCCTTGGTACAAGGGCTGGACCAAGGAAACAAAGGCTGGTGTCGTCAAGGGCAAGACCCTCCTCGATGCTATTGATGCCATTGAGCCACCTGTCCGACCTTCCGACAAACCCCTCCGTCTCCCCCTCCAGGATGTCTACAAAATTGGCGGTATCGGAACTGTGCCCGTCGGTCGTGTTGAGACTGGTATCATCAAGGCCGGAATGGTCGTCACTTTCGCTCCCTCCAACGTTACAACTGAAGTCAAGTCCGTCGAAATGCATCACGAACAGCTCGAGCAGGGTAACCCTGGTGACAATGTCGGTTTCAACGTCAAGAANGTGTCAGTGAAGGACATTCGTCGTGGTA--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>Corales\_676A\_Laccaria\_\_PANAMA\_\_28S\_\_

-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------GAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CTGAGTTGTAATCTAGAGAAGTATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGGGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGCTTT-GTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCACGTTGGCCAGGGATCAA-CCTTGC----TTTTTT---GCTTGGCTTACTTCCTGGTCGATGGG-TCAGCATCAATTTTGACTGGTGG-AAAAAGTTCAAGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATTGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGAAAAACCCGAGNGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATTGACACCCGGATCTGACCTTTTGTGACGATTCTGCGGTTGAGCATGC-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

>GMM7402\_Laccaria\_Q1\_AUSTRALIA\_QL\_KU685688\_KU685832\_KU685974\_KU686106

CCTGA-TGCGGTTGT-AGCTGGC-TTTTTGAAGCATGTGCTCGC-CCGTCATCTTT-ATCTCT--CCA-CCTGTGCACCTTTTGTAGTC-TT-GGATACCTATCGAGGAAA-CTCGGAT-----TTGG-GTTTGCTGTGC---TGT---CAAAGTCGGCTTTCCTTACATTTCC-AAGACTATGTTTT------TA-CATACACCAATTGAATGTTTAAAGAATGTCATC-AATAGGAAA---TTGTTTCCTATAT-AAAACTATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAACCTTTCCAGC--------TTTTTATTAGCGTGG--CTAGGCTTGGA-TGT-GGGGG--CTGCGGGCTTC-AT-----T---TACGAGGTCAGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT---GAAGTT-CAGCTTCT-AACCGTCC---ATTGACTTGGACAA----CTTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGCATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGCTTTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTCATT---GCTTGGCTTACTTCCTGGTTAATGGG-TCAGCATCAATTTTGATCGGTGG-AAAAAGTTCAGGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATCGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGGAAAACTCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATCGACGCCCGGATCAGACCTTTTGTGACGATTCCGCGGTAGAGCATGTTTTCCGTATGCTTTTCCGGAAATTAACCAAGGATGTCTATCGTTATTTACAAAAGGTTGCTTCGCTTCGCTTGGGCGTC-------GTGATATGCTGA-TCTTTCA---TTTTAAGTGTGTCGAGACTCACAAAGAGTTCAACCTTGCTCTCGCCGTCAAGCATCAAACCATCACAAATGGCCTCAAATACTCTCTAGCAACAGGGAACTGGGGAGATCAGAAGAAATCAATGTCTTCTAAAGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCCTCGACTTTGTCACATCTTCGTCGATGTAACACTCCTTTAGGGCGCGAAGGAAAGATTGCTAAACCTCGTCAGTTGCACAACACCCACTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGCCTGCGGTCTTGTCAAAAACCTCGCCCTTATGGCGTGTATATCAGTCGGATCCTACTCCGCGCCCGTTATCGAGTTTTTGGAGGAGTGGGGATTAGAGTCATTGGAAGAGAACGCGCACTCATCAACACCTTGCACGAAGGTTTTCGTGAATGGTGTTTGGATGGGTGTACATCGTGATCCCGCCAATTTGGTGAAGACGATAAAGAAGTTAAGAAGGAAAGACGACATCAGCCCAGAAGTTTCGGTTGTACGAGACATCAGGGAGAAGGAATTGAGGTTGTACACAGATGCTGGACGAGTTTGTCGACCGCTCTTCATCGTGGAGAATCAGCAGCTGATTCTTCAGAAGAAGCACATCAGATGGCTCAATACCGGCTTCAACGAAGATAATGACGAGTACAAGTGGGAACATCTGGTGAAGGGTGGCATCATTGAGTTGCTGGATGCTGAGGAAGAGGAAACGGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAGAGTGGTGTTGATCCTCACGCGAACGACGGCGAGTTTGATCCAGCCGCTCGGTTGAAAGCTGGCACCCACGCACACACATGGACGCATTGCGAAATTCACCCCAGTATGATACTTGGCATTTGTGCTAGCATTATCCCCTTCCCTGATCAT----------------------------------------------------------------------CGTGAGCACGCTCTTCTCGCTTTCACCCTTGGTGTGCGGCAACTCATCGTTGCCGTCAACAAGATGGACACCACCAAGGTAATAAAAAAACCGTCTTATTGTCATGCCTTTTGCTCAACCTCGTTATCCCGCCGTAGTGGAGCGAGGACCGTTTCAACGAAATCATCAAGGAGACGTCAACCTTCATYAAAAAGGTTGGTTACAACCCCAAGGCCGTTGCTTTCGTGCCTATTTCCGGTTGGCACGGCGACAACATGTTGGAGGAGTCCACCAAGTAAGCATTCATTCATATAGTCATGATCGCCCCGTCGCTCATGTTGCCCCC-AGCATGCCTTGGTACAAGGGCTGGACCAAGGAGACCAAGGCTGGTGTTGTCAAGGGCAAGACCCTCCTCGATGCTATTGATGCCATCGAGCCCCCCGTCCGACCTTCCGACAAGCCCCTTCGTCTCCCCCTTCAGGATGTTTACAAAATTGGCGGTATCGGAACTGTACCCGTCGGTCGTGTTGAGACTGGAATCATCAAGGCCGGAATGGTTGTCACTTTTGCCCCCTCGAATGTCACCACTGAAGTCAAGTCGGTCGAAATGCACCACGAGCAGCTTGAACAGGGTAACCCCGGTGACAATGTCGGTTTCAACGTCAAGAACGTGTCAGTGAAGGATATCCGTCGCGGCAAYGTCGCCTCCGACTCCAAGAACGATCCCGCCAAAGAAGCCGCCTCTTTCAATGCACAAGTTATCGTCCTTAACCACCCTGGTCAAATTGGTGCTGGTTATGCCCCAGTGCTTGATTGCCACACTGCCCACATCGCCTGCAAGTTCGCCGAGCTCATTGAGAAGATTGATCGTCGTACGGGTAAATCTATTGAAAACTCGCCCAAATTCGTCAAGTCCGGTGATGCTTGCATTGTCAAGCTCGTTCCCAGCAAGCCCATG

>GMM7403\_Laccaria\_Q1\_AUSTRALIA\_QL\_KU685689\_KU685833\_KU685975\_KU686107

CCTGA-TGCGGTTGT-AGCTGGC-TTTTTGAAGCATGTGCTCGC-CCGTCATCTTT-ATCTCT--CCA-CCTGTGCACCTTTTGTAGTC-TT-GGATACCTATCGAGGAAA-CTCGGAT-----TTGG-GTTTGCTGTGC---TGT---CAAAGTCGGCTTTCCTTACATTTCC-AAGACTATGTTTT------TA-CATACACCAATTGAATGTTTAAAGAATGTCATC-AATAGGAAA---TTGTTTCCTATAT-AAAACYATACAACTTTCAGCAACGGATCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATTAAA-TTCTCAACCTTTCCAGC--------TTTTTATTAGCGTGG--CTAGGCTTGGA-TGT-GGGGG--CTGCGGGCTTC-AT-----T---TACGAGGTCAGCTCTCCTTAAATGCATTAGCGGAACTTTTGTGGACCGTCTA-TTGGTGTGAT-AATTATCTACGCCGTGGAT-GTGAAGCAG-CTTTAT---GAAGTT-CAGCTTCT-AACCGTCC---ATTGACTTGGACAA----CTTTTGACAA-TTTGAAAGCTCAAATTTAAAATCTGGCAGT-CTTTGGCTGT-CCGAGTTGTAATCTAGAGAAGCATTATCCGCGCTGGACCGTGTACAAGTCTCCTGGAATGGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTGCCAGGGCTTTTGTGATGTGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTCCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTTGGCCAGGGATCAA-CCTTGC----TTCATT---GCTTGGCTTACTTCCTGGTTAATGGG-TCAGCATCAATTTTGATCGGTGG-AAAAAGTTCAGGGGAATGTGGCAT-CTTCGGATGTGTTATAGCCTTTGTTCGCATACATCGGTTGGGATTGAGGAACTCAGCACGCCGCAAGGCCGGG---TTTTTAACCACGTACGTGCTTAGGATGCTGGCATAATGGCTTTAATCGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATGCCTGCGAGTGTTTGGGTGGAAAACTCGAGCGCGTAATGAAAGTG-AAAGTTGAGATCCCTGTCGTGGGGAGCATCGACGCCCGGATCAGACCTTTTGTGACGATTCCGCGGTAGAGCATGTTTTCCGTATGCTTTTCCGGAAATTAACCAAGGATGTCTATCGTTATTTACAAAAGGTTGCTTCGCTTCGCTTGGGCGTC-------GTGATATGCTGA-TCTTTCA---TTTTAAGTGTGTCGAGACTCACAAAGAGTTCAACCTTGCTCTCGCCGTCAAGCATCAAACCATCACAAATGGCCTCAAATACTCTCTAGCAACAGGGAACTGGGGAGATCAGAAGAAATCAATGTCTTCTAAAGCAGGAGTATCTCAGGTCTTGAACAGATACACATATGCCTCGACTTTGTCACATCTTCGTCGATGTAACACTCCTTTAGGGCGCGAAGGAAAGATTGCTAAACCTCGTCAGTTGCACAACACCCACTGGGGTATGGTGTGTCCTGCGGAAACTCCTGAAGGTCAAGcCTGCGGTCTTGTCAAAAACCTCGCCCTTATGGCGTGTATATCAGTCGGATCCTACTCCGCGCCCGTTATCGAGTTTTTGGAGGAGTGGGGATTAGAGTCATTGGAAGAGAACGCGCACTCATCAACACCTTGCACGAAGGTTTTCGTGAATGGTGTTTGGATGGGTGTACATCGTGATCCCGCCAATTTGGTGAAGACGATAAAGAAGTTAAGAAGGAAAGACGACATCAGCCCAGAAGTTTCGGTTGTACGAGACATCAGGGAGAAGGAATTGAGGTTGTACACAGATGCTGGACGAGTTTGTCGACCGCTCTTCATCGTGGAGAATCAGCAGCTGATTCTTCAGAAGAAGCACATCAGATGGCTCAATACCGGCTTCAACGAAGATAATGACGAGTACAAGTGGGAACATCTGGTGAAGGGTGGCATCATTGAGTTGCTGGATGCTGAGGAAGAGGAAACGGTGATGATATCCATGACCCCTGAAGATCTTGAAAATTCTCGCCTACAGCAGAGTGGTGTTGATCCTCACGCGAACGACGGCGAGTTTGATCCAGCCGCTCGGTTGAAAGCTGGCACCCACGCACACACATGGACGCATTGCGAAATTCACCCCAGTATGATACTTGGCATTTGTGCTAGCATTATCCCCTTCCCTGATCAT----------------------------------------------------------------------CGTGAGCACGCTCTTCTCGCTTTCACCCTTGGTGTGCGGCAACTCATCGTTGCCGTCAACAAGATGGACACCACCAAGGTAATAAAAAAACCGTCTTATTGTCATGCCTTTTGCTCAACCTCGTTATCCCGCCGTAGTGGAGCGAGGACCGTTTCAACGAAATCATCAAGGAGACGTCAACCTTCATTAAAAAGGTTGGTTACAACCCCAAGGCCGTTGCTTTCGTGCCTATTTCCGGTTGGCACGGCGACAACATGTTGGAGGAGTCCACCAAGTAAGCATTCATTCATATAGTCATGATTGCCCCGTCGCTCATGTTGCCCCC-AGCATGCCTTGGTACAAGGGCTGGACCAAGGAGACCAAGGCTGGTGTTGTCAAGGGCAAGACCCTCCTCGATGCTATTGATGCCATCGAGCCCCCCGTCCGACCTTCCGACAAGCCCCTTCGTCTCCCCCTTCAGGATGTTTACAAAATTGGCGGTATCGGAACTGTACCCGTCGGTCGTGTTGAGACTGGAATCATCAAGGCCGGAATGGTTGTCACTTTTGCCCCCTCGAATGTCACCACTGAAGTCAAGTCGGTCGAAATGCACCACGAGCAGCTTGAACAGGGTAACCCCGGTGACAATGTCGGTTTCAACGTCAAGAACGTGTCAGTGAAGGATATCCGTCGCGGCAACGTCGCCTCCGACTCCAAGAACGATCCCGCCAAAGAAGCCGCCTCTTTCAATGCACAAGTTATCGTCCTTAACCACCCTGGTCAAATTGGTGCTGGTTATGCCCCAGTGCTTGATTGCCACACTGCCCACATCGCCTGCAAGTTCGCCGAGCTCATTGAGAAGATTGATCGTCGTACGGGTAAATCTATTGAAAACTCGCCCAAATTCGTCAAGTCCGGTGATGCTTGCATTGTCAAGCTCGTTCCgAGCAaGCCcATG