Supplemental Table 5. Complete gene list, predicted function and ortholog groups for 222 genes up-regulated 2-fold or more in *C. posadasii* strain C735 spherules compared to mycelia. *Coccidioides* specific genes are highlighted in grey.

|  |  |  |  |
| --- | --- | --- | --- |
| Gene ID | Product Description | Ortholog count | Ortholog Group |
| CPC735\_012730 | conserved hypothetical protein | 8 | OG5\_187736 |
| CPC735\_037430 | hypothetical protein | 0 | ORTH\_52755.tmp |
| CPC735\_039170 | hypothetical protein | 2 | OG5\_cpos|CPAG\_00602 |
| CPC735\_048280 | hypothetical protein | 4 | OG5\_223675 |
| CPC735\_054380 | hypothetical protein | 2 | OG5\_cpos|CPAG\_01987 |
| CPC735\_055710 | hypothetical protein | 1 | OG5\_cpos|CPAG\_02162 |
| CPC735\_067770 | hypothetical protein | 4 | OG5\_223479 |
| CPC735\_040660 | predicted protein | 3 | OG5\_cimm|CIMG\_02439T0 |
| CPC735\_062130 | srpk, putative | 2 | OG5\_cpos|CPAG\_05053 |
| CPC735\_006580 | hypothetical protein | 12 | OG5\_210714 |
| CPC735\_020310 | hypothetical protein | 1 | OG5\_uree|UREG\_02272 |
| CPC735\_033840 | hypothetical protein | 88 | OG5\_131078 |
| CPC735\_055730 | hypothetical protein | 199 | OG5\_129758 |
| CPC735\_058940 | hypothetical protein | 251 | OG5\_129350 |
| CPC735\_070310 | hypothetical protein | 147 | OG5\_129256 |
| CPC735\_049760 | 4-hydroxyphenylpyruvate dioxygenase , putative | 183 | OG5\_129448 |
| CPC735\_026260 | 5-aminolevulinate synthase, mitochondrial precursor , putative | 309 | OG5\_126783 |
| CPC735\_061990 | ABC1 family protein | 147 | OG5\_128411 |
| CPC735\_005490 | acetate kinase family protein | 119 | OG5\_130287 |
| CPC735\_063030 | acetyl-CoA hydrolase, putative | 103 | OG5\_131950 |
| CPC735\_047580 | aconitate hydratase, mitochondrial precursor, putative | 355 | OG5\_126691 |
| CPC735\_021820 | Acyl-CoA desaturase, putative | 266 | OG5\_126939 |
| CPC735\_059740 | agmatinase, putative | 319 | OG5\_127636 |
| CPC735\_068280 | alcohol dehydrogenase, putative | 126 | OG5\_149662 |
| CPC735\_007960 | allantoicase, putative | 142 | OG5\_130881 |
| CPC735\_072410 | Alpha amylase, catalytic domain containing protein | 277 | OG5\_130769 |
| CPC735\_050450 | alpha/beta hydrolase fold domain containing protein | 166 | OG5\_141437 |
| CPC735\_053100 | Alternative oxidase, mitochondrial precursor, putative | 218 | OG5\_130283 |
| CPC735\_030160 | aminotransferase, classes I and II family protein | 67 | OG5\_163698 |
| CPC735\_047350 | aminotransferase, classes I and II family protein | 171 | OG5\_128841 |
| CPC735\_028320 | ankyrin repeat containing protein | 1334 | OG5\_126538 |
| CPC735\_012290 | aquaporin-7, putative | 623 | OG5\_126615 |
| CPC735\_071000 | aspartyl-tRNA synthetase, putative | 290 | OG5\_127227 |
| CPC735\_054090 | ATPase, AAA family protein | 5 | OG5\_211131 |
| CPC735\_010590 | Auxin Efflux Carrier family protein | 148 | OG5\_132929 |
| CPC735\_005830 | BAG domain containing protein | 47 | OG5\_164000 |
| CPC735\_026130 | BAR domain containing protein | 118 | OG5\_129271 |
| CPC735\_049390 | C2 domain containing protein | 115 | OG5\_146798 |
| CPC735\_018430 | C2H2 type zinc finger containing protein | 65 | OG5\_163470 |
| CPC735\_063550 | carboxyphosphonoenolpyruvate mutase, putative | 77 | OG5\_146820 |
| CPC735\_012670 | Catalase A, putative | 476 | OG5\_127182 |
| CPC735\_058480 | chitinase | 317 | OG5\_130746 |
| CPC735\_010220 | CybS family protein | 169 | OG5\_129488 |
| CPC735\_058920 | Cyclin, N-terminal domain containing protein | 165 | OG5\_129826 |
| CPC735\_068200 | Cytidine and deoxycytidylate deaminase zinc-binding domain containing protein | 94 | OG5\_149799 |
| CPC735\_068100 | cytochrome c, putative | 154 | OG5\_127365 |
| CPC735\_031520 | Cytochrome P450 family protein | 57 | OG5\_159373 |
| CPC735\_048650 | D-isomer specific 2-hydroxyacid dehydrogenase family protein | 373 | OG5\_126787 |
| CPC735\_048940 | D-isomer specific 2-hydroxyacid dehydrogenase, NAD binding domain containing protein | 93 | OG5\_140208 |
| CPC735\_062250 | Deuterolysin metalloprotease family protein | 4 | OG5\_223492 |
| CPC735\_049950 | di/tri peptide transporter, putative | 512 | OG5\_126717 |
| CPC735\_040920 | dimeric dihydrodiol dehydrogenase, putative | 32 | OG5\_146501 |
| CPC735\_009690 | Dioxygenase family protein | 124 | OG5\_139326 |
| CPC735\_021540 | Dynamin family protein | 56 | OG5\_172020 |
| CPC735\_035370 | FAD binding domain containing protein | 340 | OG5\_133483 |
| CPC735\_024720 | Fasciclin domain containing protein | 87 | OG5\_149337 |
| CPC735\_023590 | fatty acid oxygenase, putative | 241 | OG5\_129768 |
| CPC735\_009780 | ferric reductase transmembrane component, putative | 91 | OG5\_152682 |
| CPC735\_035740 | Flavin-binding monooxygenase-like family protein | 83 | OG5\_146853 |
| CPC735\_071880 | Flavin-binding monooxygenase-like family protein | 248 | OG5\_137003 |
| CPC735\_063010 | flavocytochrome c family protein | 221 | OG5\_128620 |
| CPC735\_013760 | Fungal Zn binuclear cluster domain containing protein | 29 | OG5\_175847 |
| CPC735\_062170 | Fungal Zn binuclear cluster domain containing protein | 11 | OG5\_223927 |
| CPC735\_073370 | Glucosamine-6-phosphate isomerase , putative | 177 | OG5\_128189 |
| CPC735\_011710 | glutamate decarboxylase, putative | 253 | OG5\_129592 |
| CPC735\_057270 | glutaryl-CoA dehydrogenase, putative | 151 | OG5\_129299 |
| CPC735\_055250 | Glutathione S-transferase, putative | 465 | OG5\_126942 |
| CPC735\_040340 | glycosyl hydrolase, family 43 protein | 167 | OG5\_137411 |
| CPC735\_073380 | glycosyl hydrolase, putative | 176 | OG5\_130549 |
| CPC735\_028170 | glycosyl transferase, group 1 family protein | 158 | OG5\_138640 |
| CPC735\_046840 | HAD-superfamily subfamily IIA hydrolase, TIGR01456, CECR5 containing protein | 342 | OG5\_127847 |
| CPC735\_070990 | Hemerythrin family protein | 156 | OG5\_139259 |
| CPC735\_049570 | HMG box domain containing protein | 105 | OG5\_146233 |
| CPC735\_047390 | Hsp20/alpha crystallin family protein | 184 | OG5\_126935 |
| CPC735\_000820 | hypothetical protein | 105 | OG5\_136572 |
| CPC735\_000990 | hypothetical protein | 84 | OG5\_152860 |
| CPC735\_001320 | hypothetical protein | 88 | OG5\_138628 |
| CPC735\_001550 | hypothetical protein | 88 | OG5\_169375 |
| CPC735\_004470 | hypothetical protein | 69 | OG5\_159101 |
| CPC735\_004620 | hypothetical protein | 70 | OG5\_140219 |
| CPC735\_006560 | hypothetical protein | 119 | OG5\_136130 |
| CPC735\_007950 | hypothetical protein | 85 | OG5\_155382 |
| CPC735\_009400 | hypothetical protein | 36 | OG5\_223062 |
| CPC735\_009490 | hypothetical protein | 98 | OG5\_140223 |
| CPC735\_009620 | hypothetical protein | 61 | OG5\_168977 |
| CPC735\_010250 | hypothetical protein | 75 | OG5\_163404 |
| CPC735\_010730 | hypothetical protein | 96 | OG5\_155947 |
| CPC735\_011120 | hypothetical protein | 85 | OG5\_152638 |
| CPC735\_011730 | hypothetical protein | 5 | OG5\_223608 |
| CPC735\_011760 | hypothetical protein | 76 | OG5\_152855 |
| CPC735\_011950 | hypothetical protein | 53 | OG5\_164048 |
| CPC735\_012560 | hypothetical protein | 50 | OG5\_155929 |
| CPC735\_012570 | hypothetical protein | 50 | OG5\_169325 |
| CPC735\_013640 | hypothetical protein | 98 | OG5\_159125 |
| CPC735\_014840 | hypothetical protein | 119 | OG5\_144519 |
| CPC735\_014890 | hypothetical protein | 194 | OG5\_140625 |
| CPC735\_017030 | hypothetical protein | 52 | OG5\_155905 |
| CPC735\_017210 | hypothetical protein | 9 | OG5\_223985 |
| CPC735\_017860 | hypothetical protein | 7 | OG5\_223555 |
| CPC735\_018390 | hypothetical protein | 240 | OG5\_137954 |
| CPC735\_018490 | hypothetical protein | 77 | OG5\_159293 |
| CPC735\_018590 | hypothetical protein | 124 | OG5\_146762 |
| CPC735\_018870 | hypothetical protein | 136 | OG5\_144599 |
| CPC735\_022170 | hypothetical protein | 5 | OG5\_223463 |
| CPC735\_024050 | hypothetical protein | 69 | OG5\_159156 |
| CPC735\_024190 | hypothetical protein | 114 | OG5\_137935 |
| CPC735\_024320 | hypothetical protein | 73 | OG5\_133139 |
| CPC735\_025020 | hypothetical protein | 191 | OG5\_132830 |
| CPC735\_026040 | hypothetical protein | 13 | OG5\_223771 |
| CPC735\_027750 | hypothetical protein | 5 | OG5\_223295 |
| CPC735\_028830 | hypothetical protein | 149 | OG5\_134272 |
| CPC735\_029960 | hypothetical protein | 70 | OG5\_159478 |
| CPC735\_029970 | hypothetical protein | 148 | OG5\_137982 |
| CPC735\_031960 | hypothetical protein | 119 | OG5\_135783 |
| CPC735\_032610 | hypothetical protein | 97 | OG5\_135112 |
| CPC735\_034270 | hypothetical protein | 20 | OG5\_169838 |
| CPC735\_034870 | hypothetical protein | 9 | OG5\_187473 |
| CPC735\_035630 | hypothetical protein | 51 | OG5\_187971 |
| CPC735\_035730 | hypothetical protein | 100 | OG5\_152877 |
| CPC735\_035800 | hypothetical protein | 50 | OG5\_163724 |
| CPC735\_036330 | hypothetical protein | 82 | OG5\_152281 |
| CPC735\_036790 | hypothetical protein | 162 | OG5\_134531 |
| CPC735\_037080 | hypothetical protein | 38 | OG5\_180711 |
| CPC735\_041990 | hypothetical protein | 83 | OG5\_149935 |
| CPC735\_042180 | hypothetical protein | 94 | OG5\_155963 |
| CPC735\_042220 | hypothetical protein | 72 | OG5\_159616 |
| CPC735\_042590 | hypothetical protein | 80 | OG5\_141396 |
| CPC735\_043920 | hypothetical protein | 97 | OG5\_139407 |
| CPC735\_045800 | hypothetical protein | 13 | OG5\_cpos|CPAG\_00855 |
| CPC735\_045940 | hypothetical protein | 93 | OG5\_139364 |
| CPC735\_046700 | hypothetical protein | 167 | OG5\_136103 |
| CPC735\_047230 | hypothetical protein | 25 | OG5\_176313 |
| CPC735\_047550 | hypothetical protein | 73 | OG5\_158914 |
| CPC735\_048620 | hypothetical protein | 92 | OG5\_155839 |
| CPC735\_049490 | hypothetical protein | 93 | OG5\_176037 |
| CPC735\_050810 | hypothetical protein | 95 | OG5\_152750 |
| CPC735\_053240 | hypothetical protein | 223 | OG5\_134262 |
| CPC735\_053450 | hypothetical protein | 63 | OG5\_163567 |
| CPC735\_055630 | hypothetical protein | 90 | OG5\_155895 |
| CPC735\_055670 | hypothetical protein | 80 | OG5\_163648 |
| CPC735\_057240 | hypothetical protein | 125 | OG5\_159308 |
| CPC735\_059020 | hypothetical protein | 100 | OG5\_159286 |
| CPC735\_059050 | hypothetical protein | 34 | OG5\_169826 |
| CPC735\_060300 | hypothetical protein | 7 | OG5\_223638 |
| CPC735\_060560 | hypothetical protein | 274 | OG5\_131769 |
| CPC735\_063230 | hypothetical protein | 5 | OG5\_223504 |
| CPC735\_066080 | hypothetical protein | 57 | OG5\_159632 |
| CPC735\_066570 | hypothetical protein | 154 | OG5\_136546 |
| CPC735\_066660 | hypothetical protein | 15 | OG5\_223241 |
| CPC735\_066900 | hypothetical protein | 144 | OG5\_146869 |
| CPC735\_067310 | hypothetical protein | 87 | OG5\_163422 |
| CPC735\_067460 | hypothetical protein | 29 | OG5\_169787 |
| CPC735\_067760 | hypothetical protein | 12 | OG5\_176276 |
| CPC735\_068000 | hypothetical protein | 59 | OG5\_180757 |
| CPC735\_068350 | hypothetical protein | 194 | OG5\_140625 |
| CPC735\_068750 | hypothetical protein | 5 | OG5\_223741 |
| CPC735\_068820 | hypothetical protein | 6 | OG5\_223199 |
| CPC735\_070700 | hypothetical protein | 102 | OG5\_139306 |
| CPC735\_070920 | hypothetical protein | 114 | OG5\_133251 |
| CPC735\_072050 | hypothetical protein | 97 | OG5\_152470 |
| CPC735\_073260 | hypothetical protein | 102 | OG5\_147021 |
| CPC735\_031570 | ImpB/MucB/SamB family protein | 153 | OG5\_128521 |
| CPC735\_049700 | Iron-sulfur cluster assembly accessory family protein | 150 | OG5\_127222 |
| CPC735\_033010 | Lanthionine synthetase C-like protein | 99 | OG5\_128365 |
| CPC735\_002410 | Longevity-assurance family protein | 228 | OG5\_126838 |
| CPC735\_071520 | magnesium-translocating P-type ATPase family protein | 417 | OG5\_127253 |
| CPC735\_010130 | major facilitator superfamily protein | 91 | OG5\_149926 |
| CPC735\_014400 | Major Facilitator Superfamily protein | 114 | OG5\_155540 |
| CPC735\_014480 | Major Facilitator Superfamily protein | 126 | OG5\_149776 |
| CPC735\_032680 | Major Facilitator Superfamily protein | 369 | OG5\_134002 |
| CPC735\_049550 | Major Facilitator Superfamily protein | 317 | OG5\_132562 |
| CPC735\_053500 | Major Facilitator Superfamily protein | 177 | OG5\_136118 |
| CPC735\_063110 | Major Facilitator Superfamily protein | 1167 | OG5\_126664 |
| CPC735\_012310 | Malate synthase, glyoxysomal, putative | 189 | OG5\_130009 |
| CPC735\_052400 | mariner-Tc1 transposon family protein | 270 | OG5\_127357 |
| CPC735\_051410 | methionine-R-sulfoxide reductase family protein | 162 | OG5\_127019 |
| CPC735\_002470 | Mitochondrial carrier protein | 138 | OG5\_140273 |
| CPC735\_048820 | Mn-superoxide dismutase, putative | 287 | OG5\_126676 |
| CPC735\_057020 | multidrug resistance ABC transporter, putative | 2853 | OG5\_126574 |
| CPC735\_071320 | myb family transcription factor | 487 | OG5\_127030 |
| CPC735\_003840 | NADH-ubiquinone oxidoreductase 23 kDa subunit, mitochondrial precursor, putative | 144 | OG5\_128019 |
| CPC735\_063880 | NmrA-like family protein | 276 | OG5\_131898 |
| CPC735\_067410 | non-classical export protein, putative | 102 | OG5\_137413 |
| CPC735\_071370 | O-methyltransferase, putative | 62 | OG5\_149870 |
| CPC735\_020560 | Oxidoreductase molybdopterin binding domain containing protein | 487 | OG5\_126955 |
| CPC735\_029260 | Oxidoreductase molybdopterin binding domain containing protein | 186 | OG5\_129905 |
| CPC735\_030560 | oxidoreductase, short chain dehydrogenase/reductase family protein | 72 | OG5\_163465 |
| CPC735\_053080 | oxidoreductase, short chain dehydrogenase/reductase family protein | 196 | OG5\_128170 |
| CPC735\_023020 | oxidoreductase,short chain dehydrogenase, putative | 151 | OG5\_135785 |
| CPC735\_034980 | Patatin-like phospholipase family protein | 109 | OG5\_135392 |
| CPC735\_026690 | peroxisomal copper amine oxidase, putative | 428 | OG5\_127171 |
| CPC735\_047130 | PH domain containing protein | 190 | OG5\_136164 |
| CPC735\_018090 | PHD-finger motif containing protein | 118 | OG5\_134802 |
| CPC735\_001330 | phosphatase regulatory subunit family protein | 7 | OG5\_133458 |
| CPC735\_065470 | phosphatase regulatory subunit family protein | 226 | OG5\_134990 |
| CPC735\_039500 | Phosphatidylethanolamine-binding protein | 236 | OG5\_127642 |
| CPC735\_005500 | phosphoketolase, putative | 170 | OG5\_136541 |
| CPC735\_038600 | pirin domain containing protein | 270 | OG5\_128233 |
| CPC735\_071300 | polyketide synthase, putative | 197 | OG5\_134266 |
| CPC735\_029370 | potassium uptake protein, Trk family protein | 238 | OG5\_131516 |
| CPC735\_003620 | PQ loop repeat family protein | 263 | OG5\_128454 |
| CPC735\_041080 | predicted protein | 32 | OG5\_163427 |
| CPC735\_035890 | Protein kinase domain containing protein | 6 | OG5\_160953 |
| CPC735\_002770 | Putative tyrosine phosphatase family protein | 163 | OG5\_131528 |
| CPC735\_055750 | pyridoxamine 5'-phosphate oxidase, putative | 144 | OG5\_129127 |
| CPC735\_005250 | pyruvate decarboxylase, putative | 266 | OG5\_129158 |
| CPC735\_028620 | Ras family protein | 163 | OG5\_129742 |
| CPC735\_070300 | RmlD substrate binding domain containing protein | 130 | OG5\_134187 |
| CPC735\_073220 | RNA recognition motif containing protein | 141 | OG5\_132162 |
| CPC735\_058150 | RNA-directed RNA polymerase, putative | 247 | OG5\_130286 |
| CPC735\_014970 | Serine palmitoyltransferase 2 , putative | 226 | OG5\_127265 |
| CPC735\_067680 | SNARE domain containing protein | 156 | OG5\_127926 |
| CPC735\_020780 | sphingolipid long chain base-responsive protein PIL1, putative | 135 | OG5\_134534 |
| CPC735\_018890 | sterigmatocystin 8-O-methyltransferase precursor, putative | 143 | OG5\_152897 |
| CPC735\_051240 | steroid monooxygenase, putative | 28 | OG5\_cimm|CIMG\_01276T0 |
| CPC735\_051790 | sterol desaturase, putative | 141 | OG5\_133261 |
| CPC735\_047380 | subtilisin-like protease, putative | 5 | OG5\_215783 |
| CPC735\_033080 | succinyl-CoA synthetase beta chain, putative | 96 | OG5\_159139 |
| CPC735\_051270 | sulfate permease, putative | 512 | OG5\_126650 |
| CPC735\_005240 | THUMP domain containing protein | 165 | OG5\_129535 |
| CPC735\_038590 | Tripeptidyl-peptidase I precursor, putative | 358 | OG5\_130135 |
| CPC735\_056200 | zinc knuckle containing protein | 81 | OG5\_159448 |