Supplementary Table 2: Accession, terpene product, species and associated publication of functionally characterised TPS used in the phylogenetic tree.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **accession** | **database** | **terpene product(s)** | **species** | **publication** |
| AT4G16730.1 | TAIR | E-b-ocimene|myrcene|ee-a-farnesene | *Arabidopsis thaliana* | (Huang et al., 2010) |
| AT4G16740.1 | TAIR | E-b-ocimene|myrcene|ee-a-farnesene |
| AT1G61120.1 | TAIR | GES\_ee-geranyllinalool | (Herde et al., 2008) |
| AT2G24210.1 | TAIR | e-b-ocimene|myrcene | (Bohlmann et al., 2000) |
| AT4G13280.1 | TAIR | z-g-bisabolene | (Ro et al., 2006) |
| AT4G13300.1 | TAIR | z-g-bisabolene |
| AT1G61680.1 | TAIR | +-3s-linalool | (Chen et al., 2003) |
| AT5G23960.1 | TAIR | e-b-caryophyllene | (Tholl et al., 2005) |
| AT3G25830.1 | TAIR | 1-8-cineole | (Chen et al., 2004) |
| AT5G44630.1 | TAIR | sesqui-blend | (Tholl et al., 2005) |
| AT1G33750.1 | TAIR | sesqui-blend | (Wang et al., 2016) |
| AT3G25810.1 | TAIR | mono-blend | (Chen et al., 2003) |
| AT3G29410.1 | TAIR | sesqui-blend | (Wang et al., 2016) |
| AT1G79460.1 | TAIR | GA2\_KS | (Yamaguchi et al., 1998) |
| AFM43734.1 | NCBI | E-b-caryophyllene | *Matricaria chamomilla* | (Irmisch et al., 2012) |
| AFM43735.1 | NCBI | a-isocomene |
| AFM43736.1 | NCBI | germacrene-A |
| AFM43737.1 | NCBI | A-b-ocimene |
| AFM43738.1 | NCBI | germacrene-D |
| AAC26018.1 | NCBI | +-sabinene | *Salvia officinalis* | (Wise et al., 1998) |
| AAC26017.1 | NCBI | +-bornyl-diphosphate |
| AAC26016.1 | NCBI | 1-8-cineole |
| AAC49395.1 | NCBI | S-linalool | *Clarkia breweri* | (Dudareva et al., 1996) |
| Q93X23.1 | NCBI | myrcene | *Quercus ilex* | (Fischbach et al., 2001) |
| BAA08367.1 | NCBI | limonene | *Perilla frutescens* | (Yuba et al., 1996) |
| ABI54448.1 | NCBI | geraniol | (Ito and Honda, 2007) |
| AFD64744.1 | NCBI | geraniol | *Catharanthus roseus* | (Simkin et al., 2013) |
| AAX19772.1 | NCBI | alpha-farnesene | *Malus domestica* | (Green et al., 2007) |
| AGB14624.1 | NCBI | beta-caryophyllene | (Nieuwenhuizen et al., 2013) |
| AGB14625.1 | NCBI | germacrene-D |
| AGB14626.1 | NCBI | E-nerolidol |
| AGB14627.1 | NCBI | pinene|camphene |
| AGB14628.1 | NCBI | E-beta-ocimene |
| AGB14629.1 | NCBI | linalool |
| AGN72805.1 | NCBI | a-pinene | *Lavandula viridis* | (Benabdelkader et al., 2015) |
| BAG12022.1 | NCBI | b-eudesmol | *Zingiber zerumbet* | (Yu et al., 2008) |
| AAV63785.1 | NCBI | selinene | *Ocimum basilicum* | (Iijima et al., 2004a) |
| AAV63786.1 | NCBI | germacrene-D |
| AAV63790.1 | NCBI | fenchol |
| AAV63791.1 | NCBI | b-myrcene |
| AAV63792.1 | NCBI | terpinolene |
| AAV63788.1 | NCBI | a-zingiberene |
| AAR11765.1 | NCBI | geraniol | (Iijima et al., 2004b) |
| AAV63789.1 | NCBI | R-linalool | (Iijima et al., 2004a) |
| AAV63787.1 | NCBI | g-cadinene |
| Q84LF2.1 | NCBI | 5-epi-aristolochene | *Nicotiana attenuata* | (Bohlmann et al., 2002) |
| EgranTPS041 / Eucgr.K03518.1 | eucgenie | bicyclogermacrene | *Eucalyptus grandis* | (Külheim et al., 2015) |
| EgranTPS013 / Eucgr.D01105.1 | eucgenie | isoledene |
| EgranTPS059 / ? | eucgenie | g-terpinene\_geraniol |
| EgranTPS019 / Eucgr.E00419.1 | eucgenie | germacrene-D |
| EgranTPS101 / Eucgr.E03562.1 | eucgenie | b-pinene |
| ADR74193.1 | NCBI | E-beta-caryophyllene | *Vitis vinifera* | (Martin et al., 2010) |
| ADR74192.1 | NCBI | E-beta-caryophyllene |
| ADR74222.1 | NCBI | E-beta-caryophyllene |
| ADR74196.1 | NCBI | germacrene-D |
| ADR74195.2 | NCBI | E-alpha-bergamotene |
| ADR74199.1 | NCBI | gamma-cadinene |
| ADR74197.1 | NCBI | germacrene-D |
| ADR74198.1 | NCBI | E\_E-alpha-farnesene |
| ADR74200.1 | NCBI | beta-curcumene |
| ADR74223.1 | NCBI | sesquithujene |
| ADR74224.1 | NCBI | alpha-zingiberene |
| ADR74225.1 | NCBI | selina-411-diene/intermedeol |
| ADR74226.1 | NCBI | cubebol/delta-cadinene |
| ADR74227.1 | NCBI | alpha-humulene |
| ADR74228.1 | NCBI | E-beta-caryophyllene/2-epi-E-beta-caryophyllene |
| ADR74201.1 | NCBI | +-alpha-phellandrene |
| ADR74204.1 | NCBI | E-beta-ocimene |
| ADR74205.1 | NCBI | E-beta-ocimene |
| ADR74206.1 | NCBI | E-beta-ocimene/myrcene |
| ADR74207.1 | NCBI | E-beta-ocimene/E\_E-alpha-farnesene |
| ADR74208.1 | NCBI | E-beta-ocimene/E\_E-alpha-farnesene |
| ADR74209.1 | NCBI | 3R-linalool |
| ADR74211.1 | NCBI | 3S-linalool/E-nerolidol |
| ADR74213.1 | NCBI | 3S-linalool/E-nerolidol |
| ADR74218.1 | NCBI | geraniol |

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