

Table S2. Terpene synthase proteins functionally characterized in filamentous fungi.

Strain	Accession	Function	Classification	Reference
<i>Fusarium fujikuroi</i> m567	CAA75244.1	copalyl pyrophosphate synthase/ent-kaurene synthase	Bifunctional Class II Cyclase - diTS	[53]
<i>Fusarium fujikuroi</i> m567	CAD19988.1	phytoene synthase-lycopene cyclase polypeptide	Class I PT GFPP synthase - Class I Cyclase - tetraTS	[54]
<i>Fusarium sporotrichioides</i> NRRL 3299	AAN05035.1	trichodiene synthase	Class I Cyclase - sesquiTS	[55]
<i>Fusarium graminearum</i> GZ3639	ACY69978.1	longiborneol synthase	Class I Cyclase - sesquiTS	[56]
<i>Fusarium graminearum</i> H3	ABR87941.1	trichodiene synthase	Class I Cyclase - sesquiTS	[57]
<i>Fusarium sambucinum</i> R-6380	AAB02038.1	trichodiene synthase <i>tox5</i>	Class I Cyclase - sesquiTS	[58]
<i>Sphaceloma maniticola</i> Lu949	CAP07655.1	copalyl pyrophosphate synthase/ent-kaurene synthase	Bifunctional Class II Cyclase - diTS	[59]
<i>Phoma betae</i> Frank PS-16	BAD29971.1	aphidicolan-16 β -ol synthase	Bifunctional Class II Cyclase - diTS	[60]
<i>Phoma betae</i> N2	BAF45924.1	fusicoccadiene synthase <i>PaFs</i>	Bifunctional Chimeric Class I Cyclase-PT - diTS	[61]
<i>Aspergillus clavatus</i> NRRL 1	A1C8C3.1	ophiobolin synthase <i>AcOS</i>	Bifunctional Chimeric Class I Cyclase-PT - sesterTS	[62]
<i>Aspergillus variegator</i> NBRC 32302	BAU98235.1	astellifadiene synthase	Bifunctional Chimeric Class I Cyclase-PT - sesterTS	[63]
<i>Aspergillus variegator</i> NBRC 32302	BAX76657.1	quiannulatene synthase	Bifunctional Chimeric Class I Cyclase-PT - sesterTS	[64]
<i>Aspergillus variegator</i> NBRC 32302	BAT32888.1	variediene synthase	Bifunctional Chimeric Class I Cyclase-PT - sesterTS	[65]
<i>Aspergillus terreus</i> ATCC 20516	AAF13263.1	aristolochene synthase	Class I Cyclase - sesquiTS	[66]
<i>Aspergillus fumigatus</i> Af293	XP_747936.1	oxidosqualene cyclase/protosta17(20)Z,24-dien-3b-ol synthase	Class II Cyclase - triTS	[67]
<i>Aspergillus flavus</i> NRRL6541	AAT65718.1	biosynthesis of aflatrem <i>atmC</i>	IPPS PT aromatic - indolediTS	[68]
<i>Aspergillus flavus</i> NRRL3357	XP_002378991.1	pentalenene synthase putative	Class I Cyclase - sesquiTS	[69]
<i>Penicillium brasilianum</i> NBRC 6234	BBD05404.1	sesterbrasiliatriene synthase	Bifunctional Chimeric Class I Cyclase-PT - sesterTS	[70]
<i>Penicillium verruculosus</i> TPU1311	BBD05405.1	preasperterpenoid synthase	Bifunctional Chimeric Class I Cyclase-PT - sesterTS	[70]
<i>Penicillium roqueforti</i> NRRL 849	AAA33694.1	aristolochene synthase as	Class I Cyclase - sesquiTS	[71]
<i>Penicillium paxilli</i> PN2013	AAK11531.1	biosynthesis of paxilline (indolediterpene) <i>paxG</i>	IPPS PT aromatic - indolediTS	[72]
<i>Botrytis cinerea</i> T4	AAQ16575.1	presilphiperfolan-8 β -ol synthase <i>BcBOT2</i>	Class I Cyclase - sesquiTS	[73]
<i>Botrytis cinerea</i> B05.10	XP_001550978.1	<i>Bcsct5</i> ABA biosynthesis	Class I Cyclase - sesquiTS	[74]
<i>Cephalosporium caerulens</i>	AAL56020.1	oxidosqualene cyclase/lanosterol synthase	Class II Cyclase - triTS	[75]
<i>Neurospora crassa</i> 15300	AAA19428.1	phytoene synthase-lycopene cyclase polypeptide	Class I PT GFPP synthase - Class I Cyclase - tetraTS	[76]
<i>Neotyphodium lolii</i> Lp19	ABF20225.1	biosynthesis of lolitrem B	IPPS PT aromatic - indolediTS	[77]
<i>Hypoxylon</i> sp. E7406B	AHY23922.1	1,8 cineole synthase	Class I Cyclase - monoTS	[78]
<i>Ganoderma lucidum</i> CGMCC 5.616	AHN91949.1	squalene synthase sqs	Class I PT - triTS	[79]
<i>Trichoderma brevicompactum</i> IBT40841	CAX94841.1	trichodiene synthase	Class I Cyclase - sesquiTS	[24]
<i>Trichoderma arundinaceum</i> IBT40837	CBX36793.1	trichodiene synthase	Class I Cyclase - sesquiTS	[21]
<i>Trichoderma reesei</i> QM6a	AFX82678.1	FPP synthase <i>erg20</i>	Class I PT – sesquiTS, triTS	[26]
<i>Trichoderma virens</i> Gv29-8	ABE60722.1	volatile sesquiterpene and monoterpene biosynthesis	Class I TS	[27]