

**TABLE S1** Conserved gene clusters involved in biosynthesis of 2-pyridones in different fungi.

<i>B. bassiana</i>	<i>B. brongniartii</i>	<i>C. militaris</i>	<i>I. fumosorosea</i>	<i>A. nidulans</i>	Annotation
BBA_07334, <i>tenR</i>	BBO_05972	CCM_08264, <i>farR</i>	ISF_08694, <i>fumoR</i>	AN8414, <i>apdR</i>	Fungal zinc cluster transcription factor
BBA_07335, <i>tenA</i>	BBO_05971	CCM_08263, <i>farA</i>	ISF_08693, <i>fumoA</i>	AN8411, <i>apdE</i>	Cytochrome P450 CYP655C1
BBA_07336, <i>tenB</i>	BBO_05970	CCM_08262, <i>farB</i>	ISF_08692, <i>fumoB</i>	AN8408, <i>apdB</i>	Cytochrome P450 CYP623C1
BBA_07337, <i>tenC</i>	BBO_05969	CCM_08262, <i>farC</i>	ISF_08691, <i>fumoC</i>	AN8409, <i>apdC</i>	Enoyl reductase
BBA_07338, <i>tenS</i>	BBO_05968	CCM_08261, <i>farS</i>	ISF_08690, <i>fumoS</i>	AN8412, <i>apdA</i>	PKS-NRPS synthase
BBA_07339	BBO_05967	CCM_08260	ISF_08689	–	Putative Zn(II)2Cys6 transcription factor
–	–	–	–	AN8413, <i>adpF</i>	Aspyridones efflux protein
–	–	–	–	AN8415, <i>apdG</i>	Acyl-CoA dehydrogenase