

S1 Table: Information about proteins and their domain structures used in the analyses conducted in Fig 1.

Species	Protein	Accession #	Domain structure
<i>Metarhizium robertsii</i>	PKS1	XP_007823934.2	PF16073,PF00109,PF02801,PF00698,PF14765,PF00550,PF00975
<i>Metarhizium robertsii</i>	PKS2	XP_007819428.2	PF16073,PF00109,PF02801,PF00698,PF14765,PF00550,PF00975
<i>Metarhizium anisopliae</i>	PKS1	KID59669.1	PF16073,PF00109,PF02801,PF00698,PF14765,PF00550,PF00975
<i>Metarhizium anisopliae</i>	PKS2	KID71243.1	PF16073,PF00109,PF02801,PF00698,PF14765,PF00550,PF00975
<i>Metarhizium brunneum</i>	PKS1	XP_014539689.1	PF16073,PF00109,PF02801,PF00698,PF14765,PF00550,PF00975
<i>Metarhizium brunneum</i>	PKS2	XP_014545211.1	PF16073,PF00109,PF02801,PF00698,PF14765,PF00550,PF00975
<i>Metarhizium guizhouense</i>	PKS1	KID83385.1	PF16073,PF00109,PF02801,PF00698,PF14765,PF00550,PF00975
<i>Metarhizium guizhouense</i>	PKS2	KID86244.1	PF16073,PF00109,PF02801,PF00698,PF14765,PF00550,PF00975
<i>Metarhizium majus</i>	PKS1	XP_014573564.1	PF16073,PF00109,PF02801,PF00698,PF14765,PF00550,PF00975
<i>Metarhizium majus</i>	PKS2	XP_014575460.1	PF16073,PF00109,PF02801,PF00698,PF14765,PF00550,PF00975
<i>Metarhizium acridum</i>	PKS1	MG385100	PF16073,PF00109,PF02801,PF00698,PF14765,PF00550,PF00975
<i>Metarhizium acridum</i>	PKS2	XP_007815650.1	PF00109,PF02801,PF00698,PF14765,PF00550,PF00975
<i>Metarhizium album</i>	PKS1	MG385101	PF16073,PF00109,PF02801,PF00698,PF14765,PF00550,PF00975
<i>Trichoderma reesei</i>	Homolog of PKS1 and PKS2	ETR97354.1	PF16073,PF00109,PF02801,PF00698,PF14765,PF00550,PF00975
<i>Fusarium graminearum</i>	Homolog of PKS1 and PKS2	EYB30989.1	PF16073,PF00109,PF02801, PF16197,PF00698,PF14765,PF00550,PF00975
<i>Colletotrichum fioriniae</i>	Homolog of PKS1 and PKS2	XP_007599710.1	PF16073,PF00109,PF02801,PF00698,PF14765,PF00550,PF00975
<i>Talaromyces marneffei</i>	Homolog of PKS1 and PKS2	EEA24206.1	PF16073,PF00109,PF02801,PF00698,PF14765,PF00550,PF00975
<i>Penicillium oxalicum</i>	Homolog of PKS1 and PKS2	EPS34527.1	PF16073,PF00109,PF02801,PF00698,PF14765,PF00550,PF00975
<i>Aspergillus fumigatus</i>	Homolog of PKS1 and PKS2	XP_756095.1	PF16073,PF00109,PF02801,PF00698,PF14765,PF00550,PF00975
<i>Aspergillus clavatus</i>	Homolog of PKS1 and PKS2	XP_001276035.1	PF16073,PF00109,PF02801,PF00698,PF14765,PF00550,PF00975
<i>Cladophialophora carrionii</i>	Homolog of PKS1 and PKS2	XP_008730774.1	PF16073,PF00109,PF02801,PF00698,PF14765,PF00550,PF00975
<i>Bipolaris oryzae</i>	Homolog of PKS1 and PKS2	XP_007683730.1	PF16073,PF00109,PF02801, PF16197,PF00698,PF14765,PF00550,PF00975
<i>Pyrenophora teres f.teres</i>	Homolog of PKS1 and PKS2	XP_003298917.1	PF16073,PF00109,PF02801, PF16197,PF00698,PF14765,PF00550,PF00975
<i>Sclerotinia sclerotiorum</i>	Homolog of PKS1 and PKS2	XP_001585805.1	PF16073,PF00109,PF02801,PF00698,PF14765,PF00550,PF00975
<i>Chaetomium globosum</i>	Homolog of PKS1 and PKS2	XP_001219763.1	PF16073,PF00109,PF02801,PF00698,PF14765,PF00550,PF00975
<i>Neurospora crassa</i>	Homolog of PKS1 and PKS2	XP_960586.3	PF16073,PF00109,PF02801,PF00698,PF14765,PF00550,PF00975
<i>Sordaria macrospora</i>	Homolog of PKS1 and PKS2	CCC09041.1	PF16073,PF00109,PF02801,PF00698,PF14765,PF00550,PF00975
<i>Podospora anserine</i>	Homolog of PKS1 and PKS2	XP_001910795.1	PF16073,PF00109,PF02801,PF00698,PF14765,PF00550,PF00975
<i>Magnaporthe oryzae</i>	Homolog of PKS1 and PKS2	XP_003715434.1	PF16073,PF00109,PF02801,PF00698,PF14765,PF00550,PF00975
<i>Grossmannia clavigera</i>	Homolog of PKS1 and PKS2	XP_014172099.1	PF16073,PF00109,PF02801,PF00698,PF14765,PF00550,PF00975
<i>Eutypa lata</i>	Homolog of PKS1 and PKS2	XP-007796413.1	PF00109,PF02801,PF00698,PF14765,PF00550,PF00975
<i>Scedosporium apiospermum</i>	Homolog of PKS1 and PKS2	KEZ40717.1	PF16073,PF00109,PF02801,PF00698,PF14765,PF00550,PF00975
<i>Verticillium dahliae</i>	Homolog of PKS1 and PKS2	EGY13508.1	PF16073,PF00109,PF02801,PF00698,PF14765,PF00550,PF00975
<i>Verticillium alfalfae</i>	Homolog of PKS1 and PKS2	EEY14472.1	PF16073,PF00109,PF02801,PF00698,PF14765,PF00550,PF00975
<i>Pestalotiopsis fici</i>	Homolog of PKS1 and PKS2	ETS82099.1	PF16073,PF00109,PF02801,PF00698,PF14765,PF00550,PF00975
<i>Exophiala dermatitidis</i>	Homolog of PKS1 and PKS2	AAD31436.3	PF16073,PF00109,PF02801,PF00698,PF14765,PF00550,PF00975
<i>Colletotrichum lagenaria</i>	Homolog of PKS1 and PKS2	BAA18956.1	PF16073,PF00109,PF02801,PF00698,PF14765,PF00550,PF00975

Notes: PF16073 (SAT: starter unit acyltransferase), PF00109 (KS-N: N-terminus of β -ketoacyl synthase), PF02801 (KS-C: N-terminus of β -ketoacyl synthase), PF16197 (KA-C: ketoacyl-synthetase C-terminal extension), PF00698 (AT: acyltransferase), PF14765 (PS-DH: polyketide synthase dehydratase), PF00550 (PP-binding: Phosphopantetheine attachment site), PF00975 (TE: thioesterase).