

S1 Table. Presence of the conserved GAG biosynthetic gene cluster in different fungi.

Fungal species	GAG biosynthetic gene cluster				
<i>A. fumigatus</i>	Afu3g07870 (<i>agd3</i>)	Afu3g07890 (<i>ega3</i>)	Afu3g07900 (<i>sph3</i>)	Afu3g07910 (<i>uge3</i>)	Afu3g07860 (<i>gtb3</i>)
<i>A. nidulans</i>	AN2954	AN2953	AN2952	AN2951	AN2955
<i>M. robertsii</i>	MAA_06941 (<i>MrAgd</i> ; 48%*)	MAA_06942 (<i>MrEga</i> ; 47%)	MAA_06943 (<i>MrSph</i> ; 34%)	MAA_06944 (<i>MrUge</i> ; 51%)	MAA_06945 (<i>MrGtb</i> ; 28%)
<i>M. anisopliae</i>	MAN_07185	MAN_07186	MAN_07187	MAN_07188	MAN_07189
<i>M. brentum</i>	MBR_09142	MBR_09141	MBR_09140	MBR_09139	MBR_09138
<i>M. guizhouense</i>	MGU_09803	MGU_09802	MGU_09801	MGU_09800	MGU_09799
<i>M. majus</i>	MAJ_08446	MAJ_08447	MAJ_08448	MAJ_08449	MAJ_08450
<i>M. rileyi</i>	NOR_03856	NOR_03857	NOR_03858	NOR_03859	NOR_03860
<i>M. acridum</i>	MAC_02143	MAC_02142	MAC_02141	MAC_02140	MAC_02139
<i>M. album</i>	MAM_08305	MAM_08304	MAM_08303	MAM_08302	MAM_08301
<i>Neurospora crassa</i>	NCU05137	NCU05136	NCU05135	NCU05133	NCU05132
<i>Neurospora tetrasperma</i>	XP_009854704	XP_009854705	XP_009854706	XP_009854708	XP_009854709
<i>Verticillium dahliae</i>	VDAG_08037	VDAG_08038	VDAG_08039	VDAG_08040	VDAG_08041
<i>Sclerotinia sclerotiorum</i>	SS1G_04473	SS1G_04475	SS1G_04476	SS1G_04477	SS1G_04472
<i>Botrytis cinerea</i>	BC1G_00448	BC1G_00447	BC1G_00446	BC1G_00445	BC1G_00451
<i>Arthrobotrys oligospora</i>	XP_011120260	XP_011123749	XP_011119552	XP_011117653	XP_011119554

*, identities are at the amino acid level to the corresponding homologue of *A. fumigatus*.