

**Table S2.** Primers used for specific gene amplification of fungal DNA. Sequencing primers are identical to those used in PCR.

Primer name/Publication	Primer Sequence	PCR conditions
ITS1F/ Gardes & Bruns (1993)	5'-CTT GGT CAT TTA GAG GAA GTA A-3'	(1) 95 °C for 2 min (2) 35 cycles of 45 s at 95 °C, 45 s at 52 °C and 45 s at 72 °C (3) 72 °C for 10 min
ITS4/White <i>et al.</i> (1990)	5'-TCC TCC GCT TAT TGA TAT GC-3'	
LR0R/ Rehner & Samuels (1994)	5'-ACCCGCTGAACTTAAGC-3'	(1) 95 °C for 2 min (2) 35 cycles of 45 s at 95 °C, 45 s at 52 °C and 45 s at 72 °C (3) 72 °C for 10 min
LR5/Vilgalys & Hester (1990)	5'-TCCTGAGGGAACTTCG-3'	
LR7/Vilgalys & Hester (1990)	5'-TACTACCACCAAGAT CT-3'	(1) 95 °C for 2 min (2) 35 cycles of 45 s at 95 °C, 50 s at 52 °C and 60 s at 72 °C (3) 72 °C for 10 min
LR3R/ Moncalvo <i>et al.</i> (2000)	5'-GTCTTGAAACACGGA CC-3'	
Mcm7-709/ Schmitt <i>et al.</i> (2009)	5'-ACI MGI GTI TCV GAY GTH AAR CC-3'	
Mcm7-1348/ Schmitt <i>et al.</i> (2009)	5'-GAY TTD GCI ACI CCI GGR TCW CCC AT-3'	(1) 95 °C for 2 min (2) 35 cycles of 45 s at 95 °C, 50–60 s at 50–52 °C and 60 s at 72 °C (3) 72 °C for 10 min
NS1/ White <i>et al.</i> (1990)	5'- GTA GTC ATA TGC TTG TCT C-3'	(1) 95 °C for 2 min (2) 35 cycles of 45 s at 95 °C, 50–60 s at 50–52 °C and 60 s at 72 °C (3) 72 °C for 10 min
NS4/ White <i>et al.</i> (1990)	5'-CTTCCGTCAATTCCTTTAAG-3'	

RPB1-AFasc/Hofstetter <i>et al.</i> (2007)	5'-ADTGCCYGGYCATTTYGGT-3'	(1) 95 °C for 2 min (2) 40 cycles of 50 s at 95 °C, 60 s at 52–55 °C and 60 s at 72 °C (3) 10 min at 72 °C.
RPB1-6R2asc/ Hofstetter <i>et al.</i> (2007)	5'-ATGACCCATCATRGAYTCCT-3'	
RPB1-DF2asc/ Hofstetter <i>et al.</i> (2007)	5'-CAYAAGGARTCYATGATGG-3'	
RPB1G1R/ Hofstetter <i>et al.</i> (2007)	5'-ACNCCNACCATYTCNCCNGG-3'	
fRPB2-5F/ Liu <i>et al.</i> (1999)	5'-GAYGAYMGWGATCAYTTYGG-3'	(1) 95 °C for 2 min (2) 40 cycles of 50 s at 95 °C, 60 s at 50–55 °C and 60 s at 72 °C (3) 10 min at 72 °C.
fRPB2-7cR/ Liu <i>et al.</i> (1999)	5'-CCCATRGCTTGYTTRCCCAT-3'	
TSR1453/ Schmitt <i>et al.</i> (2009)	5'-GAR TTC CCI GAY GAR ATY GAR CT-3'	(1) 95 °C for 2 min (2) 35–40 cycles of 45 s at 95 °C, 50 s at 52 °C and 60 s at 72 °C (3) 10 at 72 °C.
TSR2308/ Schmitt <i>et al.</i> (2009)	5'-CTT RAA RTA ICC RTG IGT ICC-3'	

## References

Hofstetter V, Miadlikowska J, Kauff F, *et al.* (2007). Phylogenetic comparison of protein-coding versus ribosomal RNA-coding sequence data: A case study of the Lecanoromycetes (Ascomycota). *Molecular Phylogenetics and Evolution* **44**: 412–426.

Gardes M, Bruns TD (1993). ITS primers with enhanced specificity for basidiomycetes—application to the identification of mycorrhizae and rusts. *Molecular Ecology* **2**: 113–118.

Liu YJ, Whelen S, Hall BD (1999). Phylogenetic relationships among ascomycetes: evidence from an RNA polymerase II subunit., *Molecular Biology and Evolution* **16**: 1799–1808.

Rehner S, Samuels, GJ (1994). Taxonomy and phylogeny of *Gliocladium* analyzed from nuclear large subunits ribosomal DNA sequences. *Mycological Research* **98**: 625–634.

Schmitt I, Crespo A, Divakar PK, *et al.* (2009). New primers for promising single-copy genes in fungal phylogenetics and systematics. *Persoonia* **23**: 35–40.

Vilgalys R Hester M (1990). Rapid genetic identification and mapping of enzymatically amplified ribosomal DNA from several *Cryptococcus* species. *Journal of Bacteriology* **172**: 4238–4246.

White TJ, Bruns T, Lee S, *et al.* (1990). Amplification and direct sequencing of fungal ribosomal RNA genes for phylogenetics. In: *PCR Protocols: a guide to methods and applications* (Innis MA, Gelfand DH, Sninsky JJ, *et al.*, eds). Academic Press, USA: 315–322.