

**Table S17.** *S. macrospora* homologs of genes involved in heterokaryon incompatibility from different ascomycetes.

locus tag	species	gene	characteristics	e-value	reference
SMAC_05401	<i>N. crassa</i>	<i>mat A1</i> (NCU01958)	mating-type gene, transcription factor with alpha domain	e-126	(Glass et al., 1990)
SMAC_05404		<i>mat a1</i>	mating-type gene, transcription factor with HMG box	e-139	(Staben & Yanofsky, 1990)
SMAC_07218, SMAC_07220		<i>het-c</i> (NCU03493)	allelic <i>het</i> gene, signal peptide, transmembrane domain, glycin rich	0.0 0.0	(Saupe et al., 1996)
SMAC_07217, SMAC_07219		<i>pin-c</i> (NCU03494)	non-allelic <i>het</i> gene, TOL/HET-6/HET-E domain, interaction with <i>het-c</i>	0.0 0.0 0.0	(Kaneko et al., 2006)
SMAC_07776 <sup>1</sup>		<i>het-6</i> (NCU03533), allele HET-6(PA)	allelic <i>het</i> gene, TOL/HET- 6/HET-E domain	3e-102 1e-105	(Smith et al., 2000)
SMAC_07771		<i>un-24</i> (NCU03539)	allelic <i>het</i> gene, ribonucleoside-diphosphate reductase large chain	0.0	(Smith et al., 2000)
SMAC_08253		<i>tol</i> (NCU04453)	Suppressor of incompatibility TOL/HET- 6/HET-E domain	6e-141	(Shiu & Glass, 1999)
SMAC_02578		<i>vib-1</i> (NCU03725)	Suppressor of incompatibility, nuclear localization domain	0.0	(Xiang & Glass, 2002)
SMAC_01205	<i>P. anserina</i>	<i>het-c2</i> AAA20542.1	non-allelic <i>het</i> gene against <i>het-d</i> and <i>het-e</i> , glycolipid transfer protein	2e-76	(Saupe et al., 1994)
SMAC_09206 SMAC_10006 SMAC_08962		<i>het-d</i> CAL30216.1	non-allelic <i>het</i> gene against <i>het-c</i> , WD repeat domain, TOL/HET-6/HET-E domain, GTP-binding	5e-120 2e-79 2e-169	(Espagne et al., 2002)
SMAC_09206 SMAC_10006 SMAC_08962 SMAC_09419		<i>het-e</i> AAL37300	non-allelic <i>het</i> gene against <i>het-c</i> , WD repeat domain, TOL/HET-6/HET-E domain, GTP-binding	9e-136 6e-134 0.0 2e-90	(Espagne et al., 2002)
SMAC_09206 SMAC_10006 SMAC_08962		<i>het-r</i> ACM48730.1	non-allelic <i>het</i> gene against <i>het-v</i> , WD repeat domain, TOL/HET-6/HET-E domain, GTP-binding	3e-124 6e-91 0.0	(Chevanne et al., 2009)
SMAC_12582		<i>het-s</i> AAB8871	allelic <i>het</i> gene, prion analogue	2e-04	(Deleu et al., 1993)

<sup>1</sup>gene has internal stop codons