

1 SUPPLEMENTARY METHODS

2 *Southern blot*

3 Southern blotting was conducted as described previously (7). Briefly, 5 µg of genomic DNA
4 were digested by overnight incubation with appropriate restriction enzyme (see
5 Supplementary Figures 1 to 4 for details), separated on a 1% agarose gel electrophoresis, then
6 transferred by vacuum blotting to a GeneScreen Plus Hybridization Transfer nylon membrane
7 (Perkin Elmer) and UV-cross-linked (GS Gene Linker UV chamber, BioRad). Probes were
8 obtained by $\alpha^{32}\text{P}$ -dATP labelling of either PCR products or cloned fragments using the
9 Megaprime DNA labelling system kit (GE Healthcare) following manufacturer's
10 recommendations. Radioactive signals were obtained by exposure of a Storage Phosphor
11 Screen (Amersham Biosciences) and revealed with a Typhoon Trio imager (Ge Healthcare).

12 *³H-fluconazole accumulation*

13 Accumulation of ³H-fluconazole was quantified as previously described (7). Briefly, 2.5×10^8
14 cells from 20 ml cultures in SC medium were incubated at 30°C with 2.165 nmol of ³H-
15 fluconazole with a specific activity of 5×10^6 dpm.nmol⁻¹ (Amersham Biosciences), and 100
16 µl of the cell suspension were sampled at 0, 15, and 30 min. Accumulation was stopped by
17 dilution of each sample in SC medium containing 20 µM cold fluconazole, and
18 unincorporated ³H-fluconazole was removed by 3 washes in the same medium. Intracellular
19 ³H-fluconazole was quantified on a Wallac 1409 scintillation counter (Perkin Elmer;
20 Waltham, MA) after alkaline cell lysis and resuspension of the supernatant in scintillation
21 liquid (UltimaGold; Packard, Groningen, The Netherlands). All experiments were performed
22 in triplicate and statistically analyzed by repeated measure ANOVA at $p = 0.05$ with Dunnett
23 multiple test comparison using Prism software (version 5.04, GraphPad).

24 *Transmission electron microscopy*

25 Ultrastructure of *C. albicans* cells was observed by transmission electron microscopy
26 following standard protocol with osmium tetroxyde fixation and Epon resin inclusion (8).

28 Table S2. Plasmids used in this study.

Plasmid	Origin	Description	Reference
Clp10	see reference	integration of the <i>URA3</i> gene at the <i>RPS1</i> locus	(6)
Clp30	see reference	integration of the <i>URA3</i> , <i>ARG4</i> , and <i>HIS1</i> genes at the <i>RPS1</i> locus	(3)
pMTL21	see reference	cloning vector	(1)
pBluescript KS+	purchased	cloning vector	Invitrogen
pMB-7	see ref	URA-blaster deletion strategy	(4)
pPV1	pKS+	orf19.6102 with UTRs cloned at XhoI/BamHI sites	This study
pPV7	pKS+	orf19.909 with UTRs cloned at XhoI/BamHI sites	This study
pPV13	pKS+	orf19.7371 with UTRs cloned at XhoI/BamHI sites	This study
pPV25	pKS+	orf19.6781 with UTRs cloned at XhoI/BamHI sites	This study
pPV29	pKS+	orf19.5617 with UTRs cloned at XhoI/BamHI sites	This study
pPV46	pMB-7	URA-blaster flanking deletion cassette for orf19.6102 (inverse PCR from pPV1 cloned at PstI/BglII sites)	This study
pPV47	pMB-7	URA-blaster internal deletion cassette for orf19.6102 (inverse PCR from pPV1 cloned at PstI/BglII sites)	This study
pPV48	pMB-7	URA-blaster flanking deletion cassette for orf19.7371 (inverse PCR from pPV13 cloned at PstI/BglII sites)	This study
pPV52	pMB-7	URA-blaster flanking deletion cassette for orf19.6781 (inverse PCR from pPV25 cloned at PstI/BglII sites)	This study
pPV53	pMB-7	URA-blaster internal deletion cassette for orf19.6781 (inverse PCR from pPV25 cloned at PstI/BglII sites)	This study
pPV54	pMB-7	URA-blaster flanking deletion cassette for orf19.5617 (inverse PCR from pPV29 cloned at PstI/BglII sites)	This study
pPV55	pMB-7	URA-blaster internal deletion cassette for orf19.5617 (inverse PCR from pPV29 cloned at PstI/BglII sites)	This study
pPV59	pKS+	orf19.2747 with UTRs cloned at XhoI/BamHI sites	This study
pPV60	pMB-7	URA-blaster flanking deletion cassette for orf19.909 (inverse PCR from pPV7 cloned at PstI/BglII sites)	This study
pPV64	pMB-7	URA-blaster internal deletion cassette for orf19.2747 (inverse PCR from pPV59 cloned at PstI/BglII sites)	This study
pPV66	pMB-7	URA-blaster flanking deletion cassette for orf19.2747 (inverse PCR from pPV59 cloned at PstI/BglII sites)	This study
pPV68	pKS+	orf19.7381 with UTRs cloned at XhoI/BamHI sites	This study
pPV69	pMB-7	URA-blaster flanking deletion cassette for orf19.7381 (inverse PCR from pPV68 cloned at PstI/BglII sites)	This study
pPV70	pMB-7	URA-blaster internal deletion cassette for orf19.7381 (inverse PCR from pPV68 cloned at PstI/BglII sites)	This study
pPV76	Clp10	orf19.2545 reversion at the <i>RPS1</i> locus (entire ORF with UTRs cloned at XhoI/MluI sites)	This study
pPV77	Clp10	orf19.6102 reversion at the <i>RPS1</i> locus (entire ORF with UTRs cloned at XhoI/MluI sites)	This study
pPV78	Clp10	orf19.6713 reversion at the <i>RPS1</i> locus (entire ORF with UTRs cloned at XhoI/MluI sites)	This study
pPV79	Clp10	orf19.7381 reversion at the <i>RPS1</i> locus (entire ORF with UTRs cloned at XhoI/MluI sites)	This study
pPV80	Clp10	orf19.5617 reversion at the <i>RPS1</i> locus (entire ORF with UTRs cloned at XhoI/MluI sites)	This study
pPV81	Clp10	orf19.6781 reversion at the <i>RPS1</i> locus (entire ORF with UTRs cloned at XhoI/MluI sites)	This study
pPV83	pMB-7	URA-blaster internal deletion cassette for orf19.1168 (inverse PCR from pDS1670 cloned at PstI/BglII sites)	This study

pPV84	CIp10	orf19.909 reversion at the <i>RPS1</i> locus (entire ORF with UTRs cloned at XhoI/MluI sites)	This study
pPV85	CIp10	orf19.2747 reversion at the <i>RPS1</i> locus (entire ORF with UTRs cloned at XhoI/MluI sites)	This study
pPV86	CIp10	orf19.3865 reversion at the <i>RPS1</i> locus (entire ORF with UTRs cloned at XhoI/MluI sites)	This study
pPV87	CIp10	orf19.5676 reversion at the <i>RPS1</i> locus (entire ORF with UTRs cloned at XhoI/MluI sites)	This study
pPV88	CIp10	orf19.7371 reversion at the <i>RPS1</i> locus (entire ORF with UTRs cloned at XhoI/MluI sites)	This study
pPV89	pMB-7	URA-blaster internal deletion cassette for orf19.6227 (inverse PCR from pDS1671 cloned at PstI/BglII sites)	This study
pPV111	CIp10	orf19.1168 reversion at the <i>RPS1</i> locus (entire ORF with UTRs cloned at XhoI/MluI sites)	This study
pPV112	CIp10	orf19.6227 reversion at the <i>RPS1</i> locus (entire ORF with UTRs cloned at XhoI/MluI sites)	This study
pDS1669	pKS+	orf19.2545 with UTRs cloned at XhoI/BamHI sites	This study
pDS1670	pKS+	orf19.1168 with UTRs cloned at XhoI/BamHI sites	This study
pDS1671	pKS+	orf19.6227 with UTRs cloned at XhoI/BamHI sites	This study
pDS1672	pKS+	orf19.3865 with UTRs cloned at XhoI/BamHI sites	This study
pDS1674	pKS+	orf19.5676 with UTRs cloned at XhoI/BamHI sites	This study
pDS1675	pMB-7	URA-blaster flanking deletion cassette for orf19.2545	This study
pDS1676	pMB-7	URA-blaster flanking deletion cassette for orf19.6227 (inverse PCR from pDS1671 cloned at PstI/BglII sites)	This study
pDS1678	pMB-7	URA-blaster flanking deletion cassette for orf19.3865 (inverse PCR from pDS1672 cloned at PstI/BglII sites)	This study
pDS1680	pKS+	orf19.6713 with UTRs cloned at XhoI/BamHI sites	This study
pDS1681	pMB-7	URA-blaster flanking deletion cassette for orf19.5676 (inverse PCR from pDS1674 cloned at PstI/BglII sites)	This study
pDS1682	pMB-7	URA-blaster flanking deletion cassette for orf19.6713 (inverse PCR from pDS1680 cloned at PstI/BglII sites)	This study
pDS1685	pMB-7	URA-blaster flanking deletion cassette for orf19.1168 (inverse PCR from pDS1670 cloned at PstI/BglII sites)	This study

33 **Table S3.** Strains used in this study.

Strain	Parent	Phenotype	Genotype ^a	Reference
CAF4-2	CAF2-1	ura-	<i>ura3Δ::λimm434/ura3Δ::λimm434</i>	(4)
BWP17	SC5314	arg-, his-, ura-	<i>ura3Δ::λimm434/ura3Δ::λimm434</i> <i>his1::hisG/his1::hisG</i> <i>arg4::hisG/arg4::hisG</i>	(9)
DAY286	BWP17	arg+, his-, ura+	<i>ura3Δ::λimm434/ura3Δ::λimm434</i> <i>his1::hisG/his1::hisG</i> <i>arg4::hisG/pARG4::URA3::arg4::hisG</i>	(2)
SFY87	BWP17	arg+, his+, ura+	<i>RPS1/rps1::[CIp30]</i>	This study
PVY121	CAF4-2	ura+	<i>RPS1/rps1::[CIp10]</i>	This study
PVY44	CAF4-2	ura+	<i>orf19.2545/orf19.2545::hisG-URA3-hisG</i>	This study
PVY56	PVY44	ura-	<i>orf19.2545/orf19.2545::hisG</i>	This study
PVY62	PVY56	ura+	<i>orf19.2545::hisG-URA3-hisG /orf19.2545::hisG</i>	This study
PVY106	PVY62	ura-	<i>orf19.2545::hisG /orf19.2545::hisG</i>	This study
PVY119	PVY106	ura+, <i>orf19.2545Δ</i>	<i>orf19.2545::hisG /orf19.2545::hisG, rps1/rps1::[CIp10]</i>	This study
PVY128	PVY106	ura+, <i>orf19.2545rev</i>	<i>orf19.2545::hisG /orf19.2545::hisG, rps1/rps1::[pPV76]</i>	This study
PVY45	CAF4-2	ura+	<i>orf19.6227/orf19.6227::hisG-URA3-hisG</i>	This study
PVY57	PVY45	ura-	<i>orf19.6227/orf19.6227::hisG</i>	This study
PVY68	PVY57	ura+	<i>orf19.6227::hisG-URA3-hisG /orf19.6227::hisG</i>	This study
PVY189	PVY68	ura-	<i>orf19.6227::hisG /orf19.6227::hisG</i>	This study
PVY224	PVY189	ura+, <i>orf19.6227Δ</i>	<i>orf19.6227::hisG /orf19.6227::hisG, rps1/rps1::[CIp10]</i>	This study
PVY222	PVY189	ura+, <i>orf19.6227rev</i>	<i>orf19.6227::hisG /orf19.6227::hisG, rps1/rps1::[pPV112]</i>	This study
PVY46	CAF4-2	ura+	<i>orf19.3865/orf19.3865::hisG-URA3-hisG</i>	This study
PVY58	PVY46	ura-	<i>orf19.3865/orf19.3865::hisG</i>	This study
PVY63	PVY58	ura+	<i>orf19.3865::hisG-URA3-hisG /orf19.3865::hisG</i>	This study
PVY107	PVY63	ura-	<i>orf19.3865::hisG /orf19.3865::hisG</i>	This study
PVY120	PVY107	ura+, <i>orf19.3865Δ</i>	<i>orf19.3865::hisG /orf19.3865::hisG, rps1/rps1::[CIp10]</i>	This study
PVY137	PVY107	ura+, <i>orf19.3865rev</i>	<i>orf19.3865::hisG /orf19.3865::hisG, rps1/rps1::[pPV86]</i>	This study
PVY47	CAF4-2	ura+	<i>orf19.5676/orf19.5676::hisG-URA3-hisG</i>	This study
PVY59	PVY47	ura-	<i>orf19.5676/orf19.5676::hisG</i>	This study
PVY64	PVY59	ura+	<i>orf19.5676::hisG-URA3-hisG /orf19.5676::hisG</i>	This study
PVY98	PVY64	ura-	<i>orf19.5676::hisG /orf19.5676::hisG</i>	This study
PVY111	PVY98	ura+, <i>orf19.5676Δ</i>	<i>orf19.5676::hisG /orf19.5676::hisG, rps1/rps1::[CIp10]</i>	This study
PVY133	PVY98	ura+, <i>orf19.5676rev</i>	<i>orf19.5676::hisG /orf19.5676::hisG, rps1/rps1::[pPV87]</i>	This study
PVY48	CAF4-2	ura+	<i>orf19.6713/orf19.6713::hisG-URA3-hisG</i>	This study
PVY55	PVY48	ura-	<i>orf19.6713/orf19.6713::hisG</i>	This study
PVY60	PVY55	ura+	<i>orf19.6713::hisG-URA3-hisG /orf19.6713::hisG</i>	This study
PVY97	PVY60	ura-	<i>orf19.6713::hisG /orf19.6713::hisG</i>	This study
PVY110	PVY97	ura+, <i>orf19.6713Δ</i>	<i>orf19.6713::hisG /orf19.6713::hisG, rps1/rps1::[CIp10]</i>	This study
PVY132	PVY97	ura+, <i>orf19.6713rev</i>	<i>orf19.6713::hisG /orf19.6713::hisG, rps1/rps1::[pPV78]</i>	This study
PVY65	CAF4-2	ura+	<i>orf19.6102/orf19.6102::hisG-URA3-hisG</i>	This study
PVY70	PVY65	ura-	<i>orf19.6102/orf19.6102::hisG</i>	This study
PVY80	PVY70	ura+	<i>orf19.6102::hisG-URA3-hisG /orf19.6102::hisG</i>	This study
PVY104	PVY80	ura-	<i>orf19.6102::hisG /orf19.6102::hisG</i>	This study
PVY117	PVY104	ura+, <i>orf19.6102Δ</i>	<i>orf19.6102::hisG /orf19.6102::hisG, rps1/rps1::[CIp10]</i>	This study
PVY127	PVY104	ura+, <i>orf19.6102rev</i>	<i>orf19.6102::hisG /orf19.6102::hisG, rps1/rps1::[pPV77]</i>	This study
PVY67	CAF4-2	ura+	<i>orf19.5617/orf19.5617::hisG-URA3-hisG</i>	This study
PVY87	PVY67	ura-	<i>orf19.5617/orf19.5617::hisG</i>	This study
PVY89	PVY87	ura+	<i>orf19.5617::hisG-URA3-hisG /orf19.5617::hisG</i>	This study
PVY100	PVY89	ura-	<i>orf19.5617::hisG /orf19.5617::hisG</i>	This study
PVY113	PVY100	ura+, <i>orf19.5617Δ</i>	<i>orf19.5617::hisG /orf19.5617::hisG, rps1/rps1::[CIp10]</i>	This study
PVY129	PVY100	ura+, <i>orf19.5617rev</i>	<i>orf19.5617::hisG /orf19.5617::hisG, rps1/rps1::[pPV80]</i>	This study
PVY71	CAF4-2	ura+	<i>orf19.7371/orf19.7371::hisG-URA3-hisG</i>	This study
PVY76	PVY71	ura-	<i>orf19.7371/orf19.7371::hisG</i>	This study
PVY84	PVY76	ura+	<i>orf19.7371::hisG-URA3-hisG /orf19.7371::hisG</i>	This study
PVY105	PVY84	ura-	<i>orf19.7371::hisG /orf19.7371::hisG</i>	This study
PVY118	PVY105	ura+, <i>orf19.7371Δ</i>	<i>orf19.7371::hisG /orf19.7371::hisG, rps1/rps1::[CIp10]</i>	This study
PVY136	PVY105	ura+, <i>orf19.7371rev</i>	<i>orf19.7371::hisG /orf19.7371::hisG, rps1/rps1::[pPV88]</i>	This study

PVY73	CAF4-2	ura+	orf19.6781/orf19.6781::hisG-URA3-hisG	This study
PVY78	PVY73	ura-	orf19.6781/orf19.6781::hisG	This study
PVY82	PVY78	ura+	orf19.6781::hisG-URA3-hisG /orf19.6781::hisG	This study
PVY99	PVY82	ura-	orf19.6781::hisG /orf19.6781::hisG	This study
PVY112	PVY99	ura+, orf19.6781Δ	orf19.6781::hisG /orf19.6781::hisG, rps1/rps1::[CIp10]	This study
PVY130	PVY99	ura+, orf19.6781rev	orf19.6781::hisG /orf19.6781::hisG, rps1/rps1::[pPV81]	This study
PVY74	CAF4-2	ura+	orf19.909/orf19.909::hisG-URA3-hisG	This study
PVY91	PVY74	ura-	orf19.909/orf19.909::hisG	This study
PVY93	PVY91	ura+	orf19.909::hisG-URA3-hisG /orf19.909::hisG	This study
PVY102	PVY93	ura-	orf19.909::hisG /orf19.909::hisG	This study
PVY115	PVY102	ura+, orf19.909Δ	orf19.909::hisG /orf19.909::hisG, rps1/rps1::[CIp10]	This study
PVY135	PVY102	ura+, orf19.909rev	orf19.909::hisG /orf19.909::hisG, rps1/rps1::[pPV84]	This study
PVY75	CAF4-2	ura+	orf19.2747/orf19.2747::hisG-URA3-hisG	This study
PVY88	PVY75	ura-	orf19.2747/orf19.2747::hisG	This study
PVY90	PVY88	ura+	orf19.2747::hisG-URA3-hisG /orf19.2747::hisG	This study
PVY101	PVY90	ura-	orf19.2747::hisG /orf19.2747::hisG	This study
PVY114	PVY101	ura+, orf19.2747Δ	orf19.2747::hisG /orf19.2747::hisG, rps1/rps1::[CIp10]	This study
PVY134	PVY101	ura+, orf19.2747rev	orf19.2747::hisG /orf19.2747::hisG, rps1/rps1::[pPV85]	This study
PVY81	CAF4-2	ura+	orf19.7381/orf19.7381::hisG-URA3-hisG	This study
PVY92	PVY81	ura-	orf19.7381/orf19.7381::hisG	This study
PVY94	PVY92	ura+	orf19.7381::hisG-URA3-hisG /orf19.7381::hisG	This study
PVY103	PVY94	ura-	orf19.7381::hisG /orf19.7381::hisG	This study
PVY116	PVY103	ura+, orf19.7381Δ	orf19.7381::hisG /orf19.7381::hisG, rps1/rps1::[CIp10]	This study
PVY126	PVY103	ura+, orf19.7381rev	orf19.7381::hisG /orf19.7381::hisG, rps1/rps1::[pPV79]	This study
PVY131	CAF4-2	ura+	orf19.1168/orf19.1168::hisG-URA3-hisG	This study
PVY138	PVY131	ura-	orf19.1168/orf19.1168::hisG	This study
PVY139	PVY138	ura+	orf19.1168::hisG-URA3-hisG /orf19.1168::hisG	This study
PVY140	PVY139	ura-	orf19.1168::hisG /orf19.1168::hisG	This study
PVY221	PVY140	ura+, orf19.1168rev	orf19.1168::hisG /orf19.1168::hisG, rps1/rps1::[pPV111]	This study
PVY223	PVY140	ura+, orf19.1168Δ	orf19.1168::hisG /orf19.1168::hisG, rps1/rps1::[CIp10]	This study
HLC67	CAF4-2	ura+	efg1::hisG/efg1::hisG-URA3-hisG	(5)
PVY252	HLC67	ura-	efg1::hisG/efg1::hisG	This study
PVY253 ^b	PVY252	ura+	orf19.6102/orf19.6102::hisG-URA3-hisG	This study
PVY254 ^b	PVY252	ura+, efg1Δ	rps1/rps1::[CIp10]	This study
PVY255 ^b	PVY253	ura-	orf19.6102/orf19.6102::hisG	This study
PVY256 ^b	PVY255	ura+	orf19.6102::hisG-URA3-hisG /orf19.6102::hisG	This study
PVY257 ^b	PVY256	ura-	orf19.6102::hisG /orf19.6102::hisG	This study
PVY258 ^b	PVY257	ura+, efg1Δ rca1Δ	orf19.6102::hisG /orf19.6102::hisG, rps1/rps1::[CIp10]	This study

36 ^aAll PVY strains are *ura3Δ::λimm434/ura3Δ::λimm434*.

37 ^bAll HLC67-derived strains are *efg1::hisG/efg1::hisG*.

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40 **Table S4.** Primers used in this study.

Primer name	Description	Sequence (5'-3')*
orf19.3865-XhoI-F	Cloning into pBluescript KS+	TTTGCTCGAGCTTACAACTAGAAATTTGTG
orf19.3865-XbaI-R	Cloning into pBluescript KS+	AAATTATCTAGACATCTATTTTCAACCAAT
orf19.3865-PstI-F	Cloning into pMB-7 (flanking cassette)	TGTGACTGCAGAGGTACATTTTGTGATAA
orf19.3865-BglII-R	Cloning into pMB-7 (flanking cassette)	AAAAAGATCTATTCAGAATAATAATAATAA
orf19.3865-MluI-rev	Cloning into Clp10	ATTCAATTACGCGTGTTTTAAGA
orf19.5676-XhoI-F	Cloning into pBluescript KS+	GCTCTCGAGTGGTATCATTATTGGCGGAA
orf19.5676-XbaI-R	Cloning into pBluescript KS+	GATTCTAGACCAAAGTCACATGAGATATGA
orf19.5676-PstI-F	Cloning into pMB-7 (flanking cassette)	TGTGTCTGCAGTTATGAAATGTAAAGTGTG
orf19.5676-BglII-R	Cloning into pMB-7 (flanking cassette)	TCAAGATCTCATTAGGTATTTCAATTTCTC
orf19.5676-XhoI3	Cloning into Clp10	TCTCGCTCGAGGAAAAATGT
orf19.5676-MluI-rev	Cloning into Clp10	TTCCAATTACGCGTACACCAA
orf19.2545-XhoI-F	Cloning into pBluescript KS+	AAATCCTCGAGGATCATCTTGAAAACCTGA
orf19.2545-XbaI-R	Cloning into pBluescript KS+	TATAATCTAGAATTGGTGAATCGATGGGAA
orf19.2545-HindIII-F	Cloning into pMB-7 (flanking cassette)	TGAAAGCTTAAATGAAACCAAGTTAATTC
orf19.2545-BglII-R	Cloning into pMB-7 (flanking cassette)	TATGAGATCTCCTTGGTGGTGGTGGTAGTG
orf19.2545-MluI-rev	Cloning into Clp10	CAAAACGCGTACTAGATGAAG
orf19.1168-XhoI-F	Cloning into pBluescript KS+	TGTGACTCGAGCCAGTCTTAAAACATTGT
orf19.1168-XbaI-R	Cloning into pBluescript KS+	TGTGTCTTCTAGAGTACTATACGGCAAAGAA
orf19.1168-PstI-F	Cloning into pMB-7 (flanking cassette)	AGTAACTGCAGTACATAATGCAAAAATAAA
orf19.1168-BglII-R	Cloning into pMB-7 (flanking cassette)	CAACTAGATCTTGGATGATACTATGATTGA
orf19.1168-PstI-F2	Cloning into pMB-7 (internal cassette)	AGTAACTGCAGTACATAATGCAAAAATAAA
orf19.1168-MluI-rev	Cloning into Clp10	AGAAAGACGCGTCTGATTACTTGTAGATT
orf19.6713-XhoI-F	Cloning into pBluescript KS+	GTTCTCGAGACTATCTTTGAAGTAAAGTGT
orf19.6713-XbaI-R	Cloning into pBluescript KS+	ACATCTAGATCTATGGTTTTAACTTATGG
orf19.6713-PstI-F	Cloning into pMB-7 (flanking cassette)	TTCTGCAGCCCACTACTAATGCTACGACTG
orf19.6713-BglII-R	Cloning into pMB-7 (flanking cassette)	ATTGAGATCTTGAAGCAAAATTGGCTTGTT
orf19.6713-MluI-rev	Cloning into Clp10	ATGGACGCGTTTTAGCTTGAGT
orf19.6227-XhoI-F	Cloning into pBluescript KS+	TGCAGCTCGAGAAAATGGAGAAATATTGCTGG
orf19.6227-XbaI-R	Cloning into pBluescript KS+	TATAACTCTAGAATCCCAAATATACAGTAG
orf19.6227-PstI-F	Cloning into pMB-7 (flanking cassette)	ATCTGCTGCAGTAGTTATATGTTCCCTATT
orf19.6227-BglII-R	Cloning into pMB-7 (flanking cassette)	AATAGATCTCAGAAAAGGAGGGGGTTC
orf19.6227-Rint	Verification of homozygous deletion	TACGTGCATGATACGCCAGAT
orf19.6227-MluI-rev	Cloning into Clp10	AAGGACGCGTAATATTTCAAT
orf19.6102-XhoI-F	Cloning into pBluescript KS+	CGCGAAACTCGAGTCAGCGACGACAAGAAAGAT
orf19.6102-BamHI-R	Cloning into pBluescript KS+	CGCGAAAGGATCCAGGTTGTAGTGTGAGTAGGCG
orf19.6102-BglII-F	Cloning into pMB-7 (flanking cassette)	CGCGAAAAGATCTTTAATGATTCAGTCTTCT

orf19.6102-PstI-R	Cloning into pMB-7 (flanking cassette)	CGCGAA <u>ACTGCAGCC</u> ACCCTTACCAGTTCGACT
orf19.6102-PstI-F	Cloning into pMB-7 (internal cassette)	CGCGAA <u>ACTGCAGGG</u> ATTGCTGCGTCAAAGTGT
orf19.6102-BglII-R	Cloning into pMB-7 (internal cassette)	CGCGAAA <u>AGATCTT</u> CAAAGAGTGGTTGTTCAAA
orf19.6102-MluI-rev	Cloning into Clp10	GAGT <u>ACGCGT</u> AGTAGTCGATG
orf19.7371-F	Cloning into pBluescript KS+	TCGCTAAACAGAAGCGCAA
orf19.7371-XhoI-R	Cloning into pBluescript KS+	CGCGAA <u>ACTCGAGCT</u> GATACTGATTTATCCGTCA
orf19.7371-BglII-F	Cloning into pMB-7 (flanking cassette)	CGCGAAA <u>AGATCTG</u> TTGCTGTTCTGTTGTTTATT
orf19.7371-PstI-R	Cloning into pMB-7 (flanking cassette)	CGCGAA <u>ACTGCAGT</u> TAATATAGAGAAATAGATA
orf19.7371-PstI-F	Cloning into pMB-7 (internal cassette)	CGCGAA <u>ACTGCAGA</u> AATACAATATTATCATTTTT
orf19.7371-BglII-R	Cloning into pMB-7 (internal cassette)	CGCGAAA <u>AGATCTA</u> ACAGAATATCCCACCTCAT
orf19.7371-Rint	Verification of homozygous deletion	GCCATCACCTTCTTCGGGTGCC
orf19.7371-MluI-rev	Cloning into Clp10	ATCGAA <u>ACGCGT</u> TGTCATAGTA
orf19.909-XhoI-F	Cloning into pBluescript KS+	CGCGAA <u>ACTCGAGG</u> TGGAACGACAATCATTTTGA
orf19.909-BamHI-R	Cloning into pBluescript KS+	CGCGAA <u>AGGATCCT</u> GCCTTGTTGTTGCTGTCTT
orf19.909-BglII-F	Cloning into pMB-7 (flanking cassette)	CGCGAAA <u>AGATCTA</u> TGAAGAGAGTTAAATTAAG
orf19.909-PstI-R	Cloning into pMB-7 (flanking cassette)	CGCGAA <u>ACTGCAGG</u> TTTTAATTGATATTATAGT
orf19.909-PstI-F	Cloning into pMB-7 (internal cassette)	CGCGAA <u>ACTGCAGG</u> ATGTGATACATTCAAAAAT
orf19.909-BglII-R	Cloning into pMB-7 (internal cassette)	CGCGAAA <u>AGATCTA</u> AGGAATGTATTGATGGTAA
orf19.909-Rint	Verification of homozygous deletion	GAAACCAAACAATCGTCCTCA
orf19.909-MluI-rev	Cloning into Clp10	CGCGAAA <u>ACGCGT</u> TGCCTTGTTGTTGCTGTCTT
orf19.6781-XhoI-F	Cloning into pBluescript KS+	CGCGAA <u>ACTCGAGT</u> CTTCTCCAATTAAGCCA
orf19.6781-BamHI-R	Cloning into pBluescript KS+	CGCGAA <u>AGGATCCC</u> ACCAATAGATCAACAACGA
orf19.6781-BglII-F	Cloning into pMB-7 (flanking cassette)	CGCGAAA <u>AGATCTA</u> TAGGTGTATACCTATATGT
orf19.6781-PstI-R	Cloning into pMB-7 (flanking cassette)	CGCGAA <u>ACTGCAGT</u> GCGAAAATGAAAATGATAA
orf19.6781-PstI-F	Cloning into pMB-7 (internal cassette)	CGCGAA <u>ACTGCAG</u> ATTATGGAACATTAAATGGT
orf19.6781-BglII-R	Cloning into pMB-7 (internal cassette)	CGCGAAA <u>AGATCTA</u> CCGGCAGAGAATATTCTGT
orf19.6781-MluI-rev	Cloning into Clp10	TTTAA <u>ACGCGT</u> AATACTACAC
orf19.5617-XhoI-F	Cloning into pBluescript KS+	CGCGAA <u>ACTCGAG</u> ACAAGTTACACCAAGAGCTAG
orf19.5617-BamHI-R	Cloning into pBluescript KS+	CGCGAA <u>AGGATCCCC</u> ACAACCACAATCACATCA
orf19.5617-BglII-F	Cloning into pMB-7 (flanking cassette)	CGCGAAA <u>AGATCTT</u> TATATTGCTGTTGCTGAAT
orf19.5617-PstI-R	Cloning into pMB-7 (flanking cassette)	CGCGAA <u>ACTGCAG</u> AGAAAAGTTTGTGTTGCTATT
orf19.5617-PstI-F	Cloning into pMB-7 (internal cassette)	CGCGAA <u>ACTGCAG</u> CAAGGATGTGGAATTCTGGT
orf19.5617-BglII-R	Cloning into pMB-7 (internal cassette)	CGCGAAA <u>AGATCTA</u> AAACAATAATAATAACA
orf19.5617-MluI-rev	Cloning into Clp10	CAATAT <u>ACGCGT</u> CGATTGAAT

orf19.7381-SacI-F	Cloning into pBluescript pMTL21	CGCGAAAGAGCTCTAACAAACCAACCCCTACCT
orf19.7381-SphI-R	Cloning into pBluescript pMTL21	CGCGAAAGCATGCCTATACATATTTTCGGCAAAAC
orf19.7381-KpnI-F	Cloning into pMB-7 (flanking cassette)	CGCGAAAGGTACCGACTATTGGATATGGATCTT
orf19.7381-PstI-R	Cloning into pMB-7 (flanking cassette)	CGCGAAACTGCAGTAAATTCACATCTATATACT
orf19.7381-PstI-F	Cloning into pMB-7 (internal cassette)	CGCGAAACTGCAGACTGACAATGAAGTAGTCAA
orf19.7381-KpnI-R	Cloning into pMB-7 (internal cassette)	CGCGAAAGGTACCCGAATTTATATTCCAACCCGG
orf19.7381-MluI-rev	Cloning into Clp10	TATC <u>ACGCGT</u> CTAATCTTCTA
orf19.2747-XhoI-F	Cloning into pBluescript KS+	CGCGAAACTCGAGAGTTATTTGCTGGTGGGAGGA
orf19.2747-BamHI-R	Cloning into pBluescript KS+	CGCGAAAGGATCCTGTGCAGATTAATTTATGGTCA
orf19.2747-BglII-F	Cloning into pMB-7 (flanking cassette)	CGCGAAAAGATCTAAGAGTAGGAAAAAAAAAAAA
orf19.2747-SphI-R	Cloning into pMB-7 (flanking cassette)	CGCGAAAGCATGCAAAAAGAAAAGTTAGCATAC
orf19.2747-SphI-F	Cloning into pMB-7 (internal cassette)	CGCGAAAGCATGCTTAGCTTTGGTTGATGCTTG
orf19.2747-BglII-R	Cloning into pMB-7 (internal cassette)	CGCGAAAAGATCTACAACAATAACAATACTTCC
orf19.2747-Rint	Verification of homozygous deletion	TGAAACTAATCCCCGCGTTA
orf19.2747-MluI-rev	Cloning into Clp10	CGCGAAAACGCGTTGTGCAGATTAATTTATGGTCA
<i>OCHI</i> -RT-F	Quantitative PCR	GGCATACCATCATCTTTCCA
<i>OCHI</i> -RT-R	Quantitative PCR	ATGTCAATCAAATGGGTGCT
<i>CHT2</i> -RT-F	Quantitative PCR	CGGTGCATACAACAGTTTGA
<i>CHT2</i> -RT-R	Quantitative PCR	AATGTGTTGCCACTCCAGTT
<i>PGA13</i> -RT-F	Quantitative PCR	CTAGTGCCAGTGCCGGTGCC
<i>PGA13</i> -RT-R	Quantitative PCR	TGTGGTTGGGTGACATTCGTTGT
<i>HWP1</i> -RT-F	Quantitative PCR	ACAACCACAAGAACCTTGCGACA
<i>HWP1</i> -RT-R	Quantitative PCR	CAGGCTGATCAGGTTGAGGAGGA
<i>ECE1</i> -RT-F	Quantitative PCR	AAGGCCAACATCTGGAACGCCA
<i>ECE1</i> -RT-R	Quantitative PCR	TGCCGTCGTCAGATTGCCAGA
<i>CDR4</i> -RT-F	Quantitative PCR	CGCCACTTGGCTGCAGTGGT
<i>CDR4</i> -RT-R	Quantitative PCR	ACGCTCACCACCAGAAACCCC
<i>HGC1</i> -RT-F	Quantitative PCR	TCGGTTTTGAATGCTTCGGA
<i>HGC1</i> -RT-R	Quantitative PCR	ACCACTATTACCAAACCCGCCA
<i>ACT1</i> -RT-F	Quantitative PCR	GTTCCCAGGTATTGCTGAAC
<i>ACT1</i> -RT-R	Quantitative PCR	CAATGGATGGACCAGATTTCG
5' adapter	Strand specific library	rGUUrCrArGrArGUUrCUrArCrArGurCrCrGrArCrGrAUrC
3' adapter	Strand specific library	rAATCTCGTATGCCGTCTTCTGCTTGddC
SRA-RT	Strand specific library	CAAGCAGAAGACGGCATAACGA
GX1	Strand specific library	CAAGCAGAAGACGGCATAACGA
GX2	Strand specific library	AATGATACGGCGACCACCGACAGGTTTCAGAGTTCTACAGTCCGA

43 *Artificially added restrictions sites are underlined whenever appropriate.

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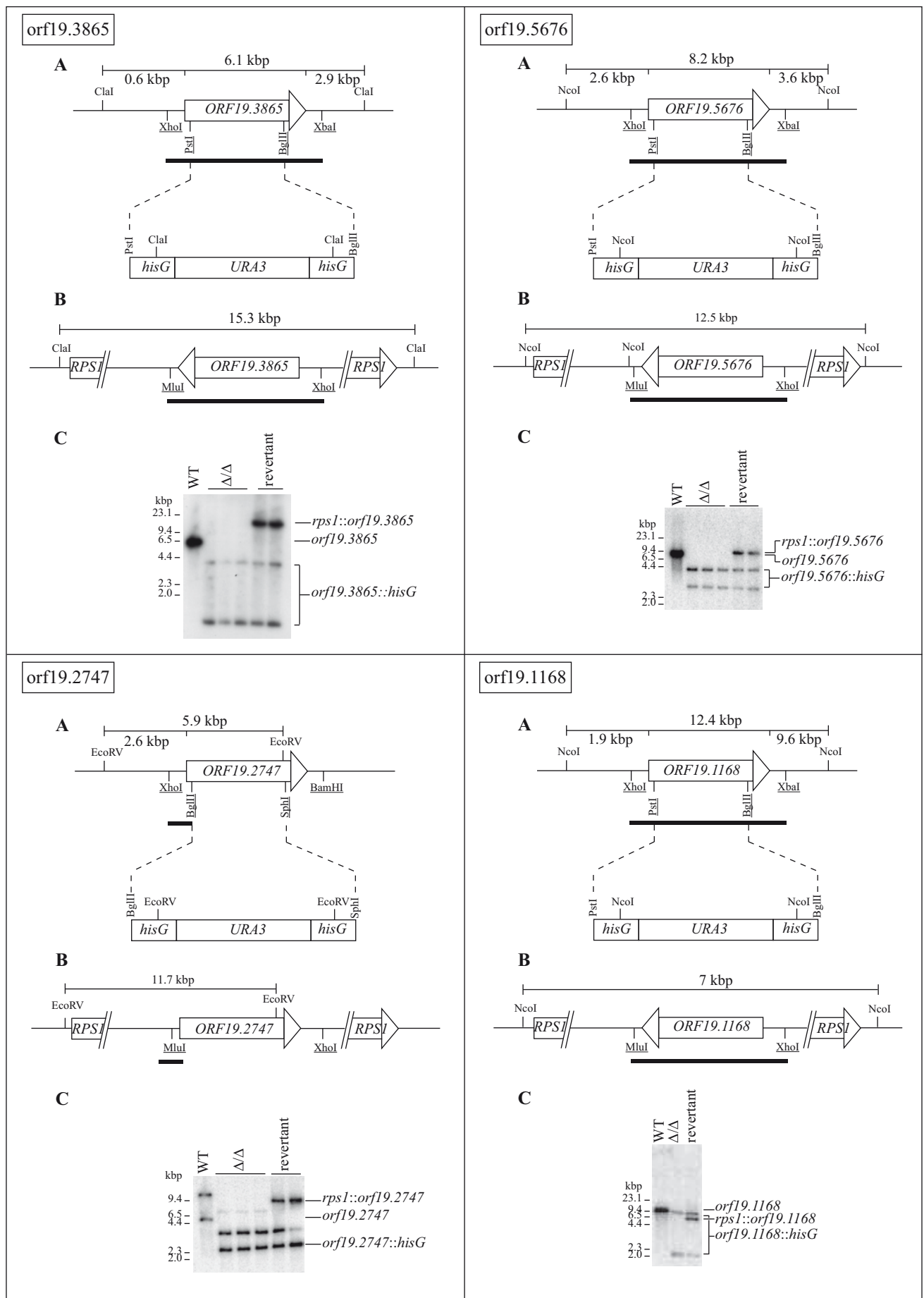


Figure S1: Genotype analysis of reconstructed mutant and revertant strains for *orf19.3865*, *orf19.5676*, *orf19.2747*, and *orf19.1168*. (A) Restriction maps of selected TFs loci and (B) of TF ORFs integrated at the *RPS1* locus. Underlined restriction sites were created by PCR for construction of recombination cassette (lines not scaled). Probe position is indicated by thick black lines under each loci. (C) Southern blot analysis of WT, homozygous deletion mutant and revertant strains for selected TFs. Each expected band is identified on the right and molecular sizes are indicated on the left (see Materials and Methods for details).

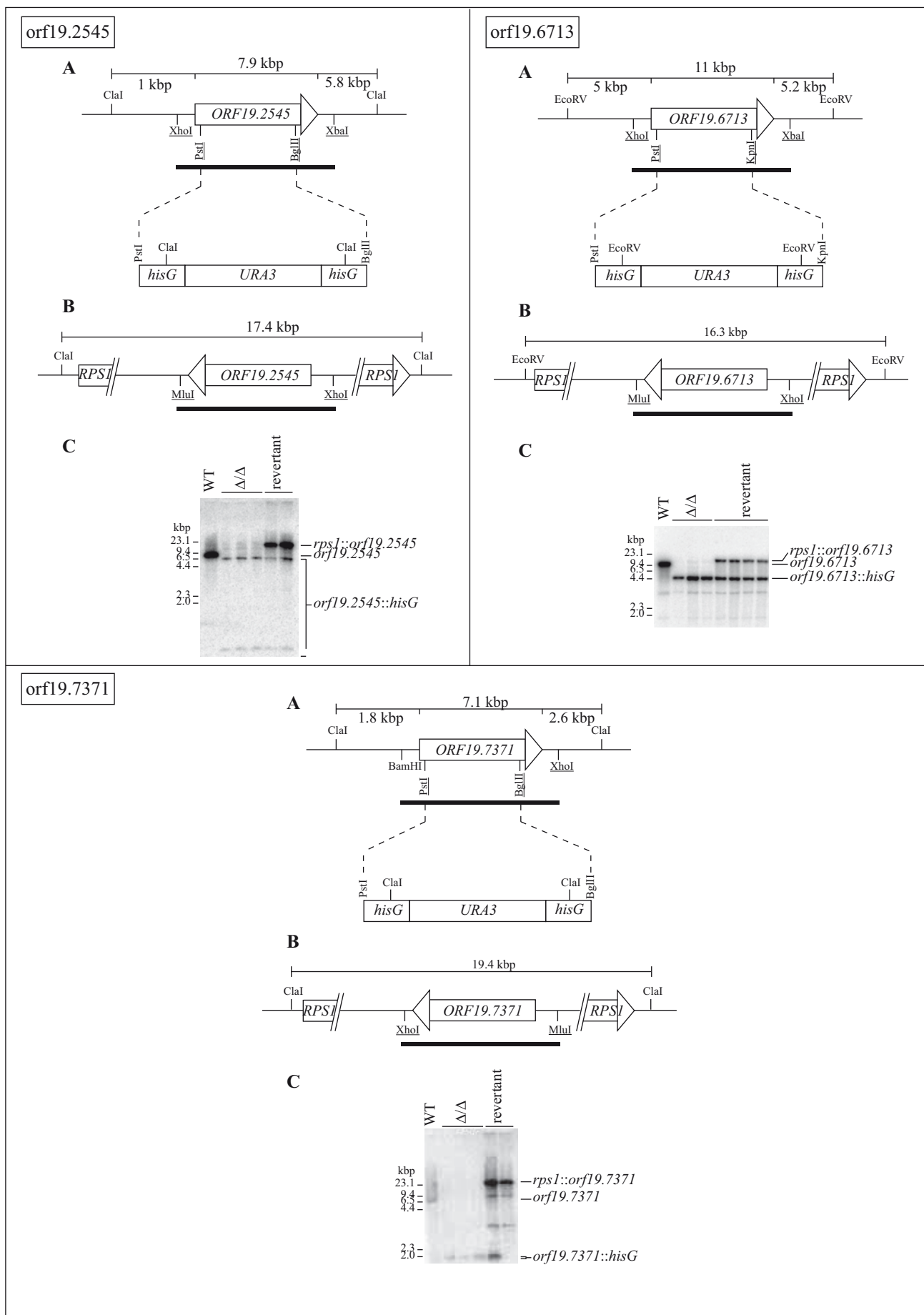


Figure S2: Genotype analysis of reconstructed mutant and revertant strains for *orf19.2545*, *orf19.6713*, and *orf19.7371*. (A) Restriction maps of selected TFs loci and (B) of TF ORFs integrated at the *RPS1* locus. Underlined restriction sites were created by PCR for construction of recombination cassette (lines not scaled). Probe position is indicated by thick black lines under each loci. (C) Southern blot analysis of WT, homozygous deletion mutant and revertant strains for selected TFs. Each expected band is identified on the right and molecular sizes are indicated on the left (see Materials and Methods for details).

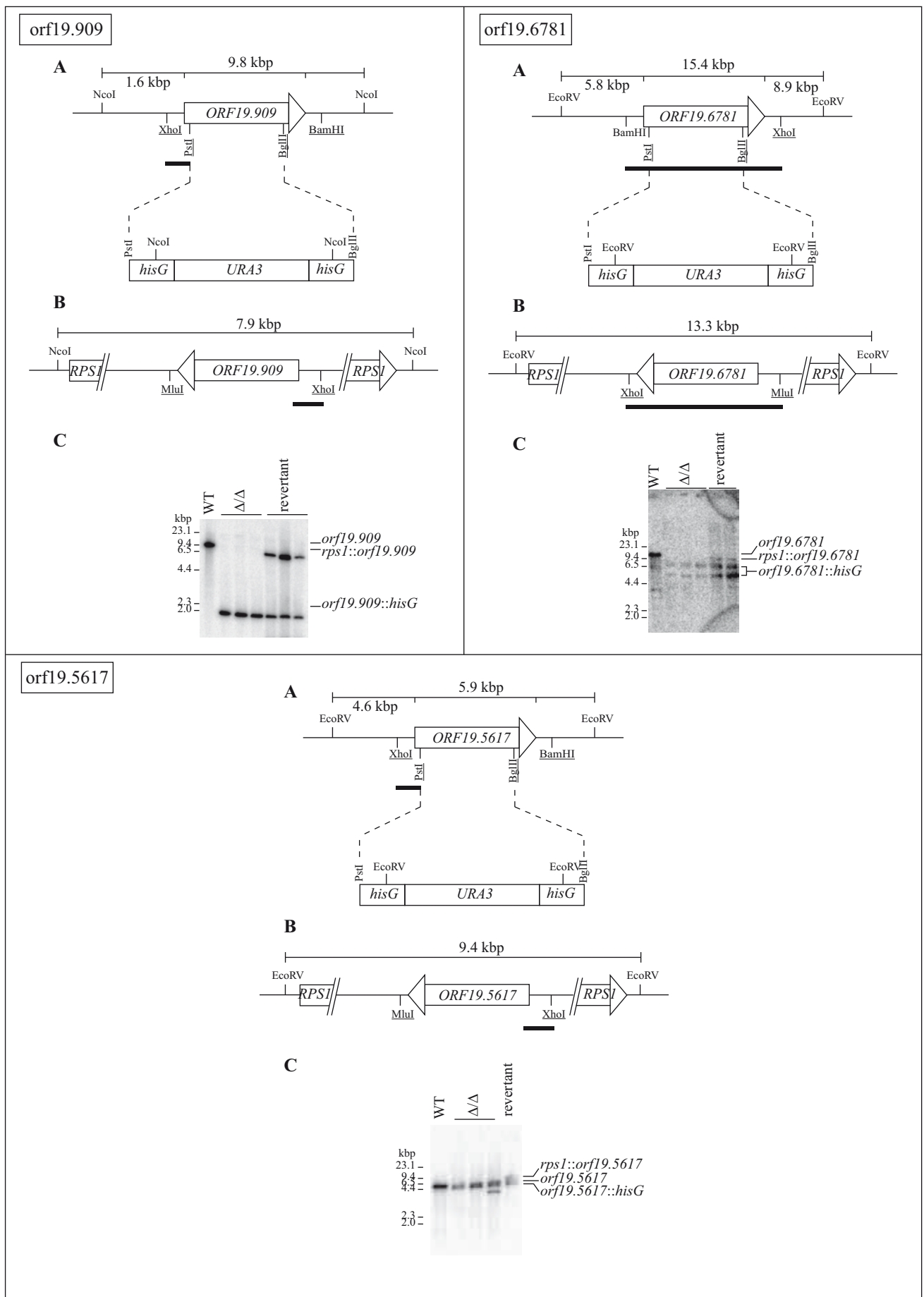


Figure S3: Genotype analysis of reconstructed mutant and revertant strains for *orf19.909*, *orf19.6781*, and *orf19.5617*. (A) Restriction maps of selected TFs loci and (B) of TF ORFs integrated at the *RPS1* locus. Underlined restriction sites were created by PCR for construction of recombination cassette (lines not scaled). Probe position is indicated by thick black lines under each loci. (C) Southern blot analysis of WT, homozygous deletion mutant and revertant strains for selected TFs. Each expected band is identified on the right and molecular sizes are indicated on the left (see Materials and Methods for details).

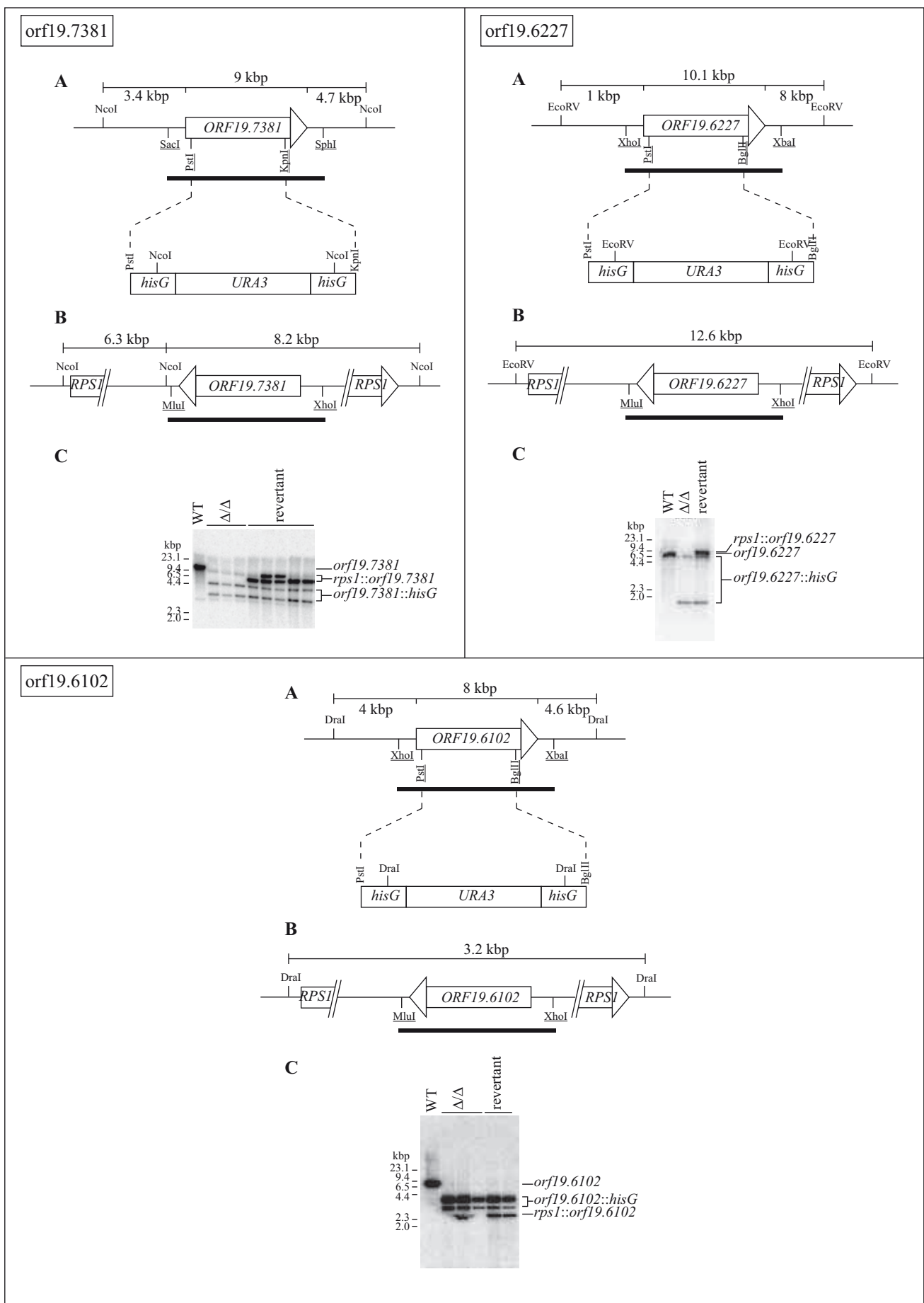


Figure S4: Genotype analysis of reconstructed mutant and revertant strains for *orf19.7381*, *orf19.6227*, and *orf19.6102*. (A) Restriction maps of selected TFs loci and (B) of TF ORFs integrated at the *RPS1* locus. Underlined restriction sites were created by PCR for construction of recombination cassette (lines not scaled). Probe position is indicated by thick black lines under each loci. (C) Southern blot analysis of WT, homozygous deletion mutant and revertant strains for selected TFs. Each expected band is identified on the right and molecular sizes are indicated on the left (see Materials and Methods for details).

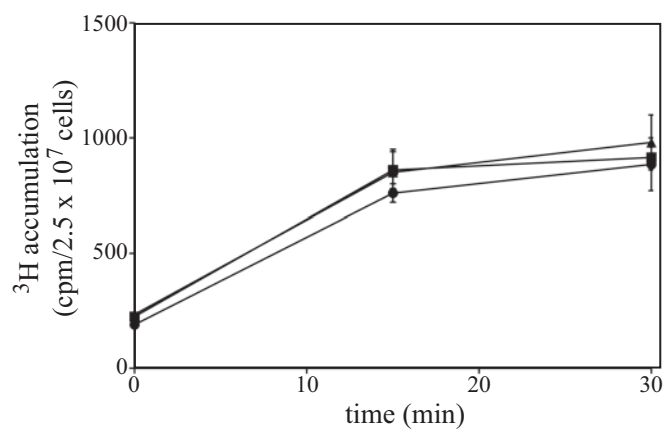


Figure S5: ³H-fluconazole accumulation. No difference in ³H-fluconazole accumulation was observed for *RCAl* mutant cells (squares), as compared to the wild type (circles) or revertant strain (triangles).

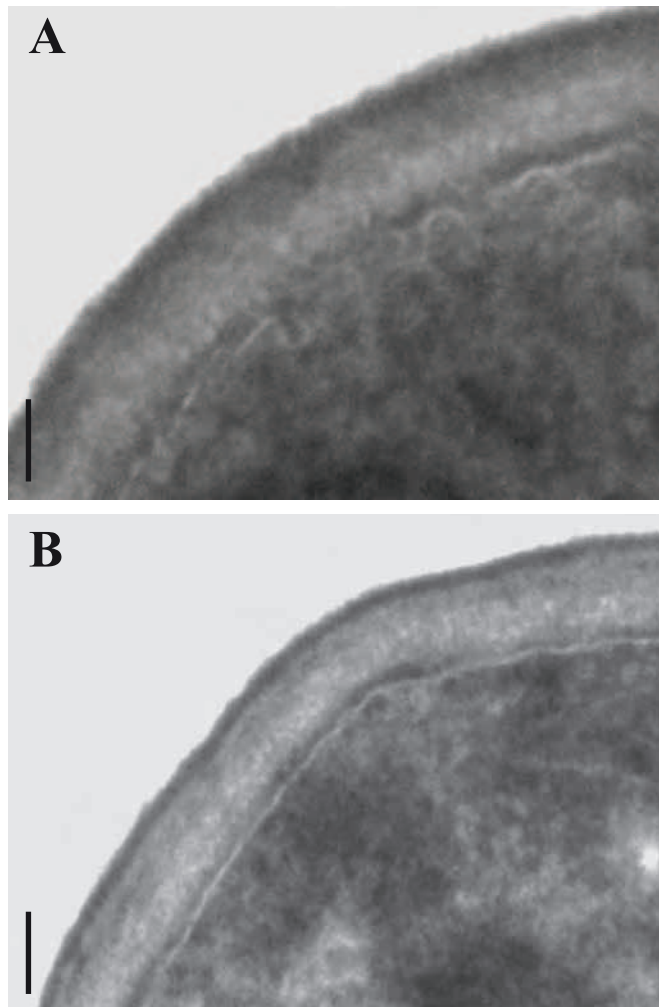


Figure S6: Cell wall ultrastructure. Transmission electron micrographs of *C. albicans* *RCA1* revertant (A) and mutant (B) strains revealed no differences. Bars: 100 nm.

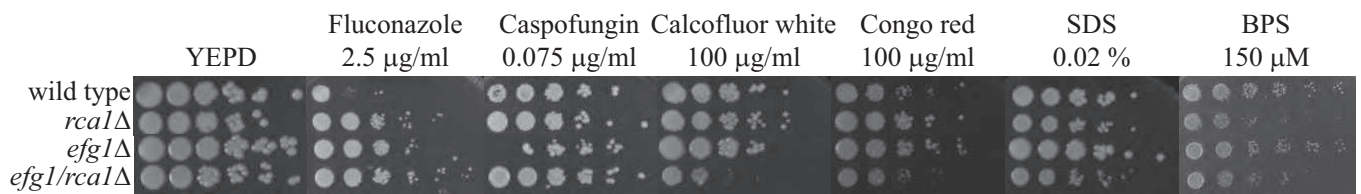


Figure S7: Susceptibility of *RCA1* and *EFG1* mutants, and of *EFG1/RCA1* double mutant to antifungals, cell wall perturbing agents, and iron chelator. Susceptibility to FLC, CAS, calcofluor white, Congo red, SDS and bathophenanthroline di-sulfonic acid (BPS) was determined by serial dilution assay. The *EFG1* mutant and the *EFG1/RCA1* double mutant, as the *RCA1* mutant, were resistant to FLC. The *EFG1/RCA1* double mutant had an increased susceptibility to all cell wall perturbing agents tested but was resistant to CAS. On the opposite, the *EFG1* mutant had an increased susceptibility to CAS but was resistant to SDS, calcofluor white, and Congo red. Only *RCA1* mutant and *RCA1/EFG1* double mutant were more susceptible to iron chelation as compared to the wild type. The *EFG1* deletion alone had no effect on BPS susceptibility, suggesting that this phenotype is mediated by the putative interaction between Rca1 and a transcriptional repressor.