

Table 1: Strains used in this study

Number	Genotype	Reference
KS1	<i>h- 972</i>	Lab collection
KS136	<i>h- tea1Δ::ura4+ ura4-D18 ade6-M210</i>	Mata and Nurse, 1997
KS390	<i>h- pom1Δ::ura4+ ura4-D18</i>	Bähler and Pringle, 1998
KS410	<i>h- tea2-1 ura4-D18</i>	Browning et al, 2000
KS586	<i>h- mod5-1::ura4+ ura4-D18 leu1-32 ade6-M210</i>	This study
KS706	<i>h- kanMX::nmt81GFPmod5 ura4-D18 leu1-32 ade6-M210</i>	This study
KS708	<i>h- mod5Δ::kanMX ura4-D18 ade6-M216</i>	This study
KS714	<i>h- kanMX::nmt81::GFPmod5 tea1Δ::ura4+ ura4-D18 leu1-32 ade6-M216</i>	This study
KS715	<i>h+ kanMX::nmt81::GFPmod5 pom1Δ::ura4+ ura4-D18 leu1-32 ade6-M210</i>	This study
KS716	<i>h+ kanMX::nmt81::GFPmod5 tea2-1 ura4-D18 leu1-32 ade6-M210</i>	This study
KS780	<i>h+ mod5Δ::kanMX ura4-D18 leu1-32 ade6-M216</i>	This study
KS781	<i>h- tip1Δ::kanMX ura4-D18 leu1-32 ade6-M210</i>	Brunner and Nurse, 2000
KS886	<i>h+ tea1GFP::kanMX ura4-D18 leu1-32 ade6-M216</i>	This study
KS955	<i>h- bud6Δ::kanMX ura4-D18 leu1-32 ade6-M216</i>	Glynn et al, 2001
KS978	<i>h- mod5ΔCaaX::ura4+ ura4-D18 leu1-32</i>	This study
KS1036	<i>h- kanMX::nmt81::GFPmod5 bud6Δ::kanMX ura4-D18 leu1-32 ade6-M216</i>	This study
KS1039	<i>h- kanMX::nmt41::GFPmod5ΔCaaX::ura4+ ura4-D18 leu1-32</i>	This study
KS1160	<i>h- tea3Δ::kanMX ura4-D18 leu1-32</i>	Arellano et al, 2002
KS1171	<i>h- kanMX::nmt81::GFPmod5 tea3Δ::his3+ ura4-D18 leu1-32 ade6-M216 his3-D1</i>	This study
KS1210	<i>h+ tea1YFP::kanMX ura4-D18 leu1-32 ade6-M216 p[nmt1::CFP-atb2::LEU2]</i>	This study
KS1211	<i>h+ mod5Δ::kanMX tea1YFP::kanMX ura4-D18 leu1-32 ade6-M216 p[nmt1::CFP-atb2::LEU2]</i>	This study
KS1218	<i>h- mod5Δ::kanMX tea1GFP::kanMX ura4-D18 leu1-32 ade6-M210</i>	This study
KS1255	<i>h- mod5-C519S::ura4+ ura4-D18 leu1-32 ade6-M210</i>	This study
KS1305	<i>h- kanMX::nmt81::GFPmod5 tip1Δ::kanMX ura4-D18 leu1-32 ade6-M216</i>	This study

Table 2: Oligonucleotide primers used in this study

OXS172	for deletion/N terminal tagging mod5, kanMX, forward primer	CCAGCTCAACTGAGGAAATTAGCGTCGCGATCCGCGTACTACTAATTGTTAGC CAAACACCCGGTTTCCCAATTCCCAGTTTGAATTCGAGCTCGTTTAAAC
OXS193	for deletion mod5 deletion 3' end, kanMX, reverse primer	CGTGAACAACCATTAATAATTCCCTTCAAGTATTACGATTTCCTTTGGATATC TGAATCCTTCATAGACACATGCTTTCGAGAATTCGAGCTCGTTTAAAC
OXS196	for N terminal GFP tagging mod5, kanMX, reverse primer	CTTCTTAAAAAATTAGCATACCTCGGATGTCTCAGGTCTCCAAAAAGAAGGAA TAGCAGGGCTTTCAGATAAAGCCGACATTTTGTATAGTTCATCCATGC
OXS215	for colony PCR kanMX, forward primer, 832 bp from end of TEF	CCTCTTCCGACCATCAAGCATTTTATCC
OXS222	for C terminal GFP/YFP, tagging tea1, kanMX, forward primer	AGACGGATTTCATGAAGTTATTGGTTAAAAGCGGCCTCTCAAATCCTCCAGCT AAAGAACCAGTCCATGACAACGAAAATCGGATCCCCGGGTTAATTA
OXS223	for C terminal GFP/YFP tagging tea1, kanMX, reverse primer	ATTAAGTAACTATTAATAGCATAGAGATTGAGGGCTACCAGTTTAAAATGTA ATTTATTTATAGATGTCATCGTCGAATGAATTCGAGCTCGTTTAAAC
OXS237	for deletion of prenylation motif mod5, ura4+, forward primer	ACACCAGTACCTAAAGAAAAACCTTCTGAAAAAAGTGAAAAACCTCCTAAAA AGAAAGTTCCAAATAGAGAAGTTTGTGCGCCAGGGTTTCCCAGTCCAGAC
OXS238	for deletion prenylation motif mod5, ura4+, reverse primer	CGTGAACAACCATTAATAATTCCCTTCAAGTATTACGATTTCCTTTGGATATC TGAATCCTTCATAGACACATGCTTTCGAAGCGGATAACAATTTACACAGGA
OXS239	for colony PCR of tea1 GFP/YFP, kanMX, reverse primer	CTCGTGATCCAAAGCGTTTGC
OXS243	for colony PCR of mod5 N terminal tags, reverse primer	GTGTCTTGAAATGAGTATGC
OXS331	for mutation of mod5 C519S, +ura4, forward primer	GAAAAACCTTCTGAAAAAGTGAAAAACCTCCTAAAAAGAAAGTTCCAAAT TAGAGAAGTTTGTCTATTTGATGTAACGCCAGGGTTTCCCAGTCCAGAC

Table 3: Percent cells with altered morphology during polarity re-establishment on solid media (see Methods for further information)

Strain	normal	abnormal	branched	cells scored
wild-type (KS1)	99%	0.4%	0.2%	500
<i>tea1Δ</i> (KS136)	46%	13%	41%	500
<i>mod5Δ</i> (KS708)	93%	3.4%	4.6%	500

Table 4: Percent cells with a curling microtubule at cell ends, at different temperatures ( see Methods for further information)

Strain	25°C	30°C	36°C	25°C shift to 36°C (6 hr)
wild-type (KS1)	0% (869 cells)	0.1% (784)	2.3% (919)	3.5% (779)
<i>tea1Δ</i> (KS136)	1.4% (774)	3.0% (792)	15.2% (624)	17.5% (740)
<i>mod5Δ</i> (KS708)	0.6% (713)	1.3% (827)	5.5% (789)	6.4% (782)