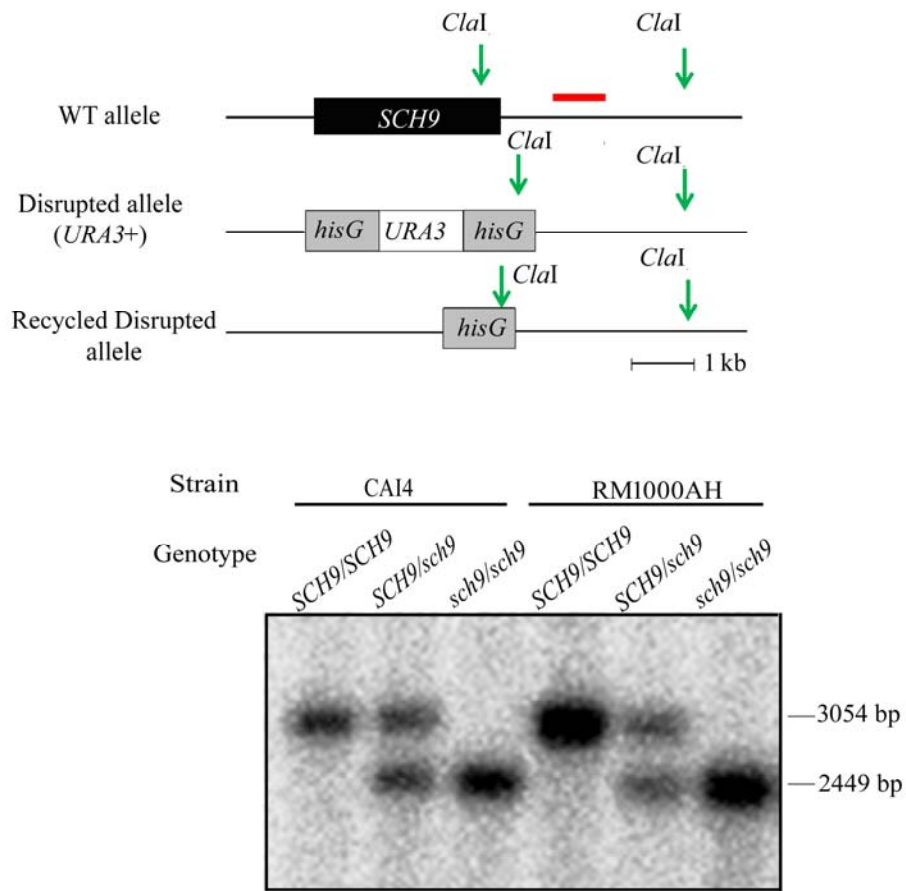






## File S1

### Strain construction

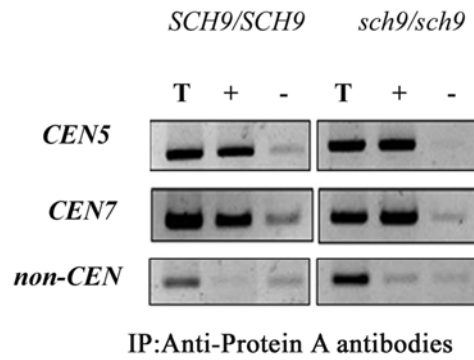
*C. albicans* strain AF1006 producing C-terminally HA-tagged Sch9 was constructed by transformation of heterozygous strain CAS2 by a tagging cassette generated by oligonucleotides Sch9-HA for/rev, as described (SCHAEKEL *et al.* 2013). Correct chromosomal integration was verified by colony PCR using primers Sch9ver and 3' test HA-tag. Both alleles of *SCH9* were deleted in *C. albicans* strain RM1000AH (SANYAL *et al.* 2004) and 8675 (JOGLEKAR *et al.* 2008) using the URA blaster method. The construction of the URA blaster deletion cassette for *SCH9* was described previously (STICHTERNOOTH *et al.* 2011). After the deletion of the first copy, the heterozygous strains were grown on 5-FOA plate to make the cells auxotroph for *URA3* to obtain RMKS1A, RMKS1B and 8675t. Then the same cassette was again used to disrupt the second allele of the gene, to get strains RMKS2A, RMKS2B and 8675T, respectively. To obtain the re-integrant of Sch9 in heterozygous and homozygous mutant background, the entire ORF along with its promoter and terminator was cloned in *KpnI* and *SalI* sites in Clp10 integration vector (MURAD *et al.* 2000). Sch9 orf was re-integrated at *RPS10* locus in the *Candida* genome using *StuI* to obtain RMKS1AR, RMKS1BR, RMKS2AR and RMKS2BR. The correct chromosomal integration of Clp10 was verified by PCR using primers UP-RPS10 and NV207. To check the binding pattern of CENP-A across the centromere in *sch9* mutant by ChIP, one copy of CENP-A was tagged with Prot A using plasmid construct pCaCse4TAPNAT (THAKUR and SANYAL 2013). pCaCse4-TAP-NAT was partially digested with *XhoI* and transformed into RMKS2A to get Prot A tagged CENP-A strain.



**Figure S1** Southern blot analysis. Line diagrams showing wild-type and disrupted alleles of *SCH9*. *Cla*I digested DNA from wild-type strains (CAI4, RM1000AH) and corresponding heterozygous and null mutant strains lacking one or both copies of *SCH9* gene was separated on an agarose gel, blotted and probed with a region marked by the red line. Green arrows indicate *Cla*I sites. Bar, 1 kb.

	Percentage of cells with indicated morphology				Total no. of cells counted
					
CAI4	61.1	24.7	0.4	13.8	247
CAS1	69.1	24.7	0.7	6	133
CCS3	79.2	10.9	1.2	3.6	164

**Figure S2** *C. albicans* wild-type (*SCH9/SCH9*), heterozygous (*SCH9/sch9*) and homozygous null mutant (*sch9/sch9*) strains were grown till  $OD_{600} \sim 1$  at  $30^\circ$  in normoxic condition in YPDU and were stained with DAPI. A table showing percentages of cells with indicated morphologies of DAPI-stained nuclei.



**Figure S3** Cse4 localisation at the centromere is not affected by absence of Sch9. Standard ChIP assays were performed on strains CAKS102 (*CSE4-TAP/CSE4;SCH9/SCH9*) and J200T (*CSE4-TAP/Cse4; sch9/sch9*) (grown at 30°) using anti-Protein A (Cse4) antibodies. Enrichment at *CEN7*, *CEN5* and non-centromeric region was analysed using semi- quantitative PCR. PCR using total DNA (T) or ChIP DNA fractions with (+) or without (-) antibodies was performed.

**Table S1 Strains used in this study**

<b>Name</b>	<b>Parent</b>	<b>Genotype</b>	<b>Reference</b>
CAI4	SC5314	<i>ura3::imm434/ura3::imm434</i>	Fonzi <i>et al</i> 1993
CAS1	CAI4	as CAI4 but <i>SCH9/sch9::hisG-URA3-hisG</i>	Stichernoth <i>et al</i> , 2011
CAS2	CAS1	as CAI4 but <i>SCH9/sch9::hisG</i>	Stichernoth <i>et al</i> , 2011
CCS3	CAS2	as CAI4 but <i>sch9::hisG/sch9::hisG URA3/ura3::imm434</i>	Stichernoth <i>et al</i> , 2011
AF1006	CAS2	as CAS2 but <i>SCH9::(3xHA-URA3)/sch9::hisG</i>	This study
RM1000AH	RM1000	<i>Δura3::imm434/Δura3::imm434Δhis1::hisG/ Δhis1::hisG arg4::HIS1/ARG4</i>	Sanyal <i>et al</i> , 2004
RMKS1A	RM1000AH	<i>Δura3::imm434/ Δura3::imm434 Δhis1::hisG/ Δhis1::hisG arg4::HIS1/ARG4 sch9::hisG/SCH9</i>	This study
RMKS1B	RM1000AH	<i>Δura3::imm434/ Δura3::imm434 Δhis1::hisG/ Δhis1::hisG arg4::HIS1/ARG4 sch9::hisG/SCH9</i>	This study
RMKS2A	RMKS1A	<i>Δura3::imm434/ Δura3::imm434 Δhis1::hisG/ Δhis1::hisG arg4::HIS1/ARG4 sch9::hisG/sch9::hisG- URA3-hisG</i>	This study
RMKS2B	RMKS1B	<i>Δura3::imm434/ Δura3::imm434 Δhis1::hisG/ Δhis1::hisG arg4::HIS1/ARG4 sch9::hisG/sch9::hisG- URA3-hisG</i>	This study
RMKS1AR	RMKS1A	<i>Δura3::imm434/ Δura3::imm434 Δhis1::hisG/ Δhis1::hisG arg4::HIS1/ARG4 sch9::hisG/SCH9/Cip10-SCH9</i>	This study
RMKS1BR	RMKS1B	<i>Δura3::imm434/ Δura3::imm434 Δhis1::hisG/ Δhis1::hisG arg4::HIS1/ARG4 sch9::hisG/SCH9/ Cip10-SCH9</i>	This study
RMKS2AR	RMKS2A	<i>Δura3::imm434/ Δura3::imm434 Δhis1::hisG/ Δhis1::hisG arg4::HIS1/ARG4 sch9::hisG/sch9::hisG- URA3-hisG/ Cip10-SCH9</i>	This study
RMKS2BR	RMKS2B	<i>Δura3::imm434/ Δura3::imm434 Δhis1::hisG/ Δhis1::hisG arg4::HIS1/ARG4 sch9::hisG/sch9::hisG- URA3-hisG/ Cip10-SCH9</i>	This study
8675	BWP17	<i>Δ ura3::λimm434/ Δ ura3::imm434 Δhis1::hisG/Δhis1::hisGΔarg4::hisG/arg4::hisG CSE4/CSE4::GFP::CSE4</i>	Joglekaret <i>et al</i> , 2008

8675t	8675	<i>Δ ura3::λimm434/Δura3::imm434</i> <i>Δhis1::hisG/Δhis1::hisGΔarg4::hisG/Δarg4:: hisG</i> <i>CSE4/CSE4:GFP:CSE4 sch9::hisG/SCH9</i>	This study
8675T	8675t	<i>Δ ura3::λimm434/Δura3::imm434</i> <i>Δhis1::hisG/Δhis1::hisGΔarg4::hisG/Δarg4:: hisG</i> <i>CSE4/CSE4:GFP:CSE4 sch9::hisG/sch9::hisG-URA3-</i> <i>hisG</i>	This study
CAKS102	SN148	<i>Δura3::imm434/Δura3::imm434,</i> <i>Δhis1::hisG/Δhis1::hisG, Δarg4::hisG/Δarg4::hisG,</i> <i>Δleu2::hisG/Δleu2::hisG CSE4/CSE4-TAP(URA3)</i>	Mitra <i>et al</i> , 2014
J200	RM1000AH	<i>Δura3::imm434/ Δura3::imm434 Δhis1::hisG/</i> <i>Δhis1::hisG arg4::HIS1/ARG4 CSE4/CSE4TAP-NAT</i>	Thakur <i>et al</i> , 2013
J200T	J200	<i>ura3::imm434/ ura3::imm434 his1::hisG/his1::hisG</i> <i>arg4::HIS1/ARG4 sch9::hisG/sch9::hisG-URA3-hisG</i> <i>CSE4::CSE4-TAP-NAT</i>	This study

**Table S2 Primers used in this study**

Primer name	Sequence	Description
2498-21	CTG GTG CAA GAC CCT CAT AGA AGC	Semi-quantitative ChIP PCR primers for CEN7
2498-22	CCT GAC ACT GTC GTT TCC CAT AGC	Semi-quantitative ChIP PCR primers for CEN7
CEN5e	TGTTCTGACATACTGGGTAGACTTT	Semi-quantitative ChIP PCR primers for CEN5
CEN5f	CGAAGCATTTTGTATAACAGCCC	Semi-quantitative ChIP PCR primers for CEN5
CACH5R1	TTCATGGAAGAGGGGTTTCA	qPCR primers for CEN5
CACH5F1	CCCGCAAATAAGCAAACACT	qPCR primers for CEN5
NCEN7-3	GCATACCTGACACTGTCGTT	qPCR primers for CEN7
NCEN7-4	AACGGTGCTACGTTTTTTTA	qPCR primers for CEN7
Ctrl 7 a	ACTCGCCTTCCCCTCCTTAAATAG	qPCR and semi-quantitative ChIP PCR primers for non centromeric region
Ctrl 7 b	CCACTACTACGACTGTGGATCACT	qPCR and semi-quantitative ChIP PCR primers for non centromeric region
Sch9-HA for	GAAGAAGAAGATGAAATGGAAGTTGATGAAGAT CAACATATGGATGATGAATTTGTCAATGGAAGAT TTGATCTTGGTGGTGGTCCGGATCCCCGGGTTAAT TAA	HA tagging
Sch9-HA rev	GCACAAAATGGAGAAGGAGAAAAAGTAGGAAC GGAATTCTATTGAATGGAACAGTTTAGTTCTAGA AGGACCACCTTTGATTG	HA tagging
Sch9ver	GTTGATTCTGGTCATTAGG	Tagging verification primers
3' test HA-tag	CATCGTATGGGTAAAAGATG	Tagging verification primers
NV195	AGTGGTACCGGTGCGATGTATAACTTCATTTTCAT	Clp10 cloning forward
NV196	ACGCGTCGAGCAC AGA CAT TGG GCA AGA AA	Clp10 cloning reverse
UP-RPS10	TTCTGGTGTCTCTCACTGTTAAGC	Clp10 integration confirmation forward
NV207	GAGTTATTAGCCCTGCGATCTTTG	Clp10 integration confirmation reverse

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