

Supplementary Materials
Molecular Biology of the Cell
Caydasi *et al.*

Supplementary Data

SWR1 Chromatin Remodeling Complex Prevents Mitotic Slippage during Spindle Position Checkpoint Arrest

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		number of genes
SGA hits	Total number	100
	GO: mitochondria, ribosome, t-RNA, galactose met.	26
manual test	Could not be deleted in another background	6
	Deleted in another background	68
	Deletion rescues Kin4 overexpression toxicity	52
	Deletion causes reduced Kin4 overexpression	8
	Deletion causes SPOC deficiency	28

Figure S1. Genome- wide genetic screen to identify gene deletions that rescue the lethality of *KIN4* overexpression lethality and its validation. The table summarizes the number of screen hits and validated results.

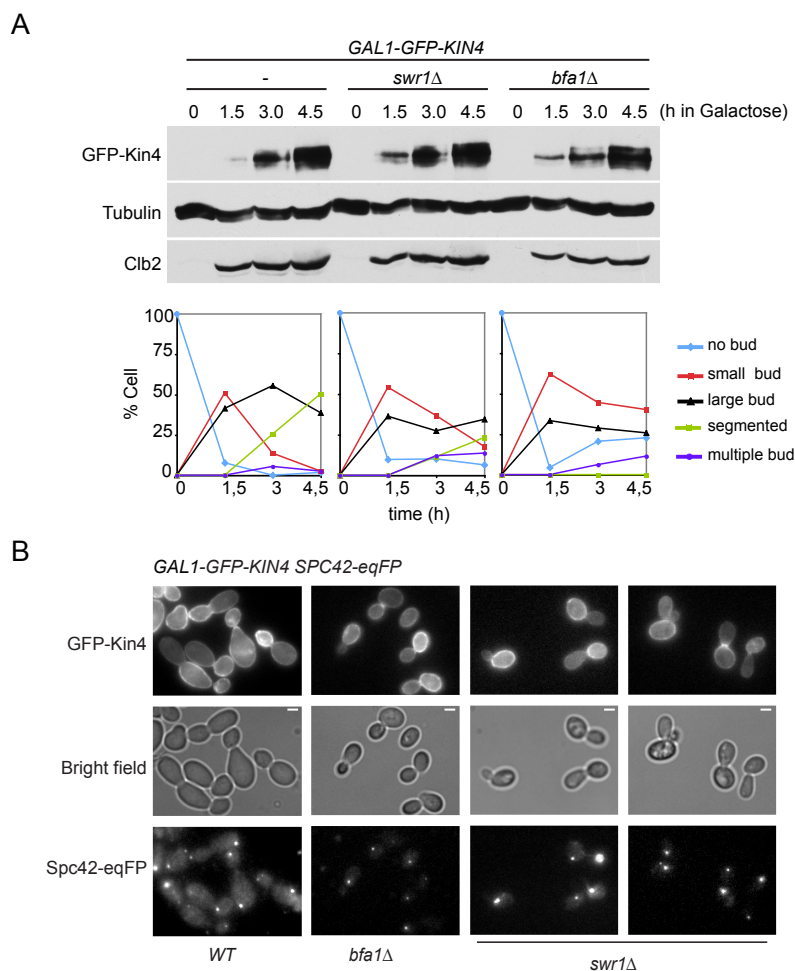


Figure S2. *swr1Δ* rescues *KIN4* overexpression lethality. A-B. Cells synchronized in G1 were released in galactose containing medium (t=0) to induce *KIN4* overexpression. Samples were collected as indicated time point for immunoblotting to observe Kin4 and Clb2 levels (A upper panel), for microscopy after DAPI staining to observe budding and chromosome segregation (A lower panel) and for fluorescence microscopy of Kin4-GFP to observe Kin4 localization (B). *GAL1-KIN4* cells arrested as large budded or segmented cells after 4.5 h of *GAL1* induction. Deletion of the target of Kin4 (*bfa1Δ*), abolished this phenotype. After 4.5h of induction *bfa1Δ* cell population was a mixture of non-budded, small budded, large budded and

multi budded cells. Similar to *bfa1Δ*, *swr1Δ* cell population contained non-budded, small budded, large budded and multi budded cells after 4.5h of induction. Differently from *bfa1Δ*, *swr1Δ* population also had a pool of segmented cells, albeit to a lesser extent than *SWR1* cells.

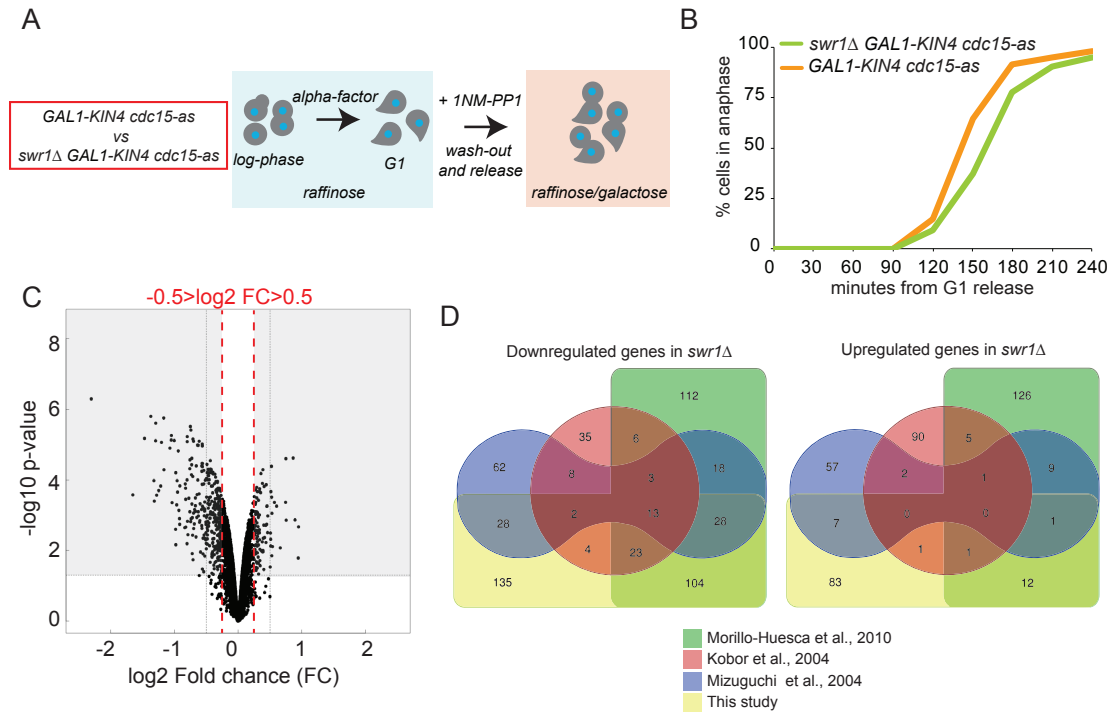


Figure S3. Analysis of *SWR1* dependent gene expression in anaphase arrested cells. A. Schematic diagram of the experimental setup. B. The graph shows the percentage of anaphase cells in the experiment depicted in A. At least 100 cells were counted at each timepoint. Cells in anaphase were scored based on separated nuclei in cells after staining of the cells with DAPI. Cells from the 240 min were collected for microarray analysis. C. Volcano plot shows the log₂ fold change differences in *SWR1* and *swr1Δ* cells. D. Venn diagram comparing the *SWR1* dependent mRNA changes identified in this study and previous studies.

A

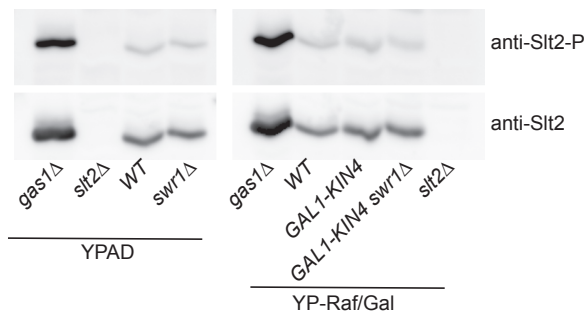


B

		number of genes	
SGA	Hits	69	
	Enriched in protein-protein associations	45	
manual test	Deleted in another background (at least two genes from each protein complex)	32	
	Deletion synthetic sick with <i>GAL1-KIN4 swr1Δ</i> on raffinose/galactose	29	
	Deletion rescues SPOC deficiency of <i>swr1Δ</i>	strong phenotype	4
		weak phenotype	2

Figure S4. SGA screening reveals genes required for mitotic exit in *swr1Δ GAL1-KIN4* cells. A. Schematic representation of the SGA screen. Briefly, gene deletions (gene of interest, *goiΔ*) that diminish the growth of *GAL1-KIN4 swr1Δ* but not of *swr1Δ* on plates containing raffinose/galactose (*GAL1-KIN4* inducing condition) were selected. An example of one gene deletion with the desired phenotype (in quadruplicate) is highlighted in red. B. Summary of number of hits obtained from the SGA screen and validated hits through manual test.

A



B

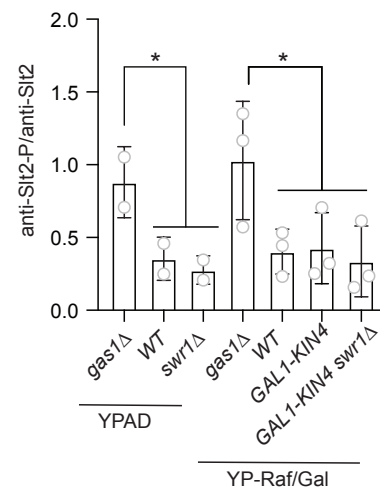


Figure S5. Cell wall integrity (CWI) pathway is not activated by Kin4 A. Wild type, *GAL1-KIN4* and *GAL1-KIN4 swr1Δ* carrying cells were grown in glucose (YPAD) or galactose (YP-Raf/Gal) media to repress or induce Kin4 overproduction, respectively. Active Slt2 (Phosphorylated Slt2, Slt2-P) and Slt2 total protein levels were analyzed by immunoblotting. *gas1Δ* cells were used as a control for CWI hyperactivation (enhanced Slt2 protein levels and phosphorylation), whereas *slt2Δ* cells served as a control for antibody specificity. B.

Quantification of A showing the normalized ratio of phospho-Slt2 to total Slt2 from three independent experiments. Error bars are standard deviation. One-way Anova test was performed. * $p < 0.05$.

Supplementary Tables and linked Data Sets:

Supplementary Table 1. Top 100 hits of the SGA screen which identified gene deletions that rescue the lethality of *KIN4* overexpression. (Linked data: **Data Set 1.** Source data for Supplementary Table 1)

Supplementary Table 2. Validation of the hits of the screen results presented in Supplementary Table 1. (Linked data: **Data Set 2.** Source data for Supplementary Table 2.)

Supplementary Table 3. Up and down regulated genes in *GAL1-Kin4 cdc15-as swr1Δ* cells in comparison to *GAL1-Kin4 cdc15-as SWR1* cells. (Linked data: **Data Set 3.** Source data for Supplementary Table 3.)

Supplementary Table 4. Gene ontology analysis of differentially regulated mRNAs by SWR1-C. (Linked data: **Data Set 4.** Source data for Supplementary Table 4.)

Supplementary Table 5. Raw data and hits of the SGA screen which identified gene deletions that cause lethality of *KIN4* overexpression in *swr1Δ* background. (Linked data: **Data Set 5.** Source data for Supplementary Table 5.)

Supplementary Table 6. Validation of the hits of the screen results presented in Supplementary Table 5. (Linked data: **Data Set 6.** Source data for Supplementary Table 6.)

Supplementary Table 7. Table of strains used in the study.

Supplementary Table 1. Top 100 hits of the SGA screen which identified gene deletions that rescue the lethality of KIN4 overexpression.

ranking#	median growth on galactose	ORF systematic name	standard name
1	3,545454545	YJR053W	BFA1
2	2,93	YMR055C	BUB2
3	2,784090909	YGR063C	SPT4
4	2,761363636	YJR052W	RAD7
5	2,75	YER177W	BMH1
6	2,545454545	YML041C	VPS71
7	2,46	YOR233W	KIN4
8	2,3	YGR064W	YGR064W
9	2,3	YOL012C	HTZ1
10	2,23	YPL248C	GAL4
11	2,169811321	YOR014W	RTS1
12	2,145833333	YDL005C	MED2
13	2,094339623	YNL306W	MRPS18
14	2,046296296	YDR009W	GAL3
15	1,969387755	YFL001W	DEG1
16	1,965909091	YPL049C	DIG1
17	1,958333333	YDR485C	VPS72
18	1,938596491	YAL011W	SWC3
19	1,925925926	YGL025C	PGD1
20	1,90625	YDR293C	SSD1
21	1,905660377	YLR085C	ARP6
22	1,9	YOL050C	YOL050C
23	1,897727273	YMR116C	ASC1
24	1,850877193	YDR334W	SWR1
25	1,84	YOR187W	TUF1
26	1,836734694	YNL107W	YAF9
27	1,820754717	YNL307C	MCK1
28	1,791666667	YBR231C	SWC5
29	1,785714286	YNR052C	POP2
30	1,772727273	YJR043C	POL32
31	1,77	YNR051C	BRE5
32	1,766666667	YGR076C	MRPL25
33	1,739583333	YBR251W	MRPS5
34	1,738636364	YML119W	YML119W
35	1,727272727	YPL040C	ISM1
36	1,685185185	YDR075W	PPH3
37	1,669811321	YNL064C	YDJ1
38	1,666666667	YBR078W	ECM33
39	1,659090909	YMR198W	CIK1
40	1,65625	YDR435C	PPM1
41	1,632075472	YMR307W	GAS1
42	1,62745098	YLR081W	GAL2
43	1,625	YHR191C	CTF8
44	1,603773585	YNL185C	MRPL19
45	1,602272727	YPL008W	CHL1
46	1,594339623	YNL177C	MRPL22
47	1,583333333	YDR506C	GMC1
48	1,575471698	YNR036C	YNR036C
49	1,5625	YCL016C	DCC1
50	1,56122449	YAL040C	CLN3
51	1,556818182	YBR140C	IRA1
52	1,556603774	YLR420W	URA4
53	1,554347826	YIL069C	RPS24B
54	1,547169811	YOR023C	AHC1
55	1,546296296	YCR077C	PAT1
56	1,546296296	YPR100W	MRPL51
57	1,544444444	YGR010W	NMA2
58	1,544444444	YER050C	RSM18
59	1,543478261	YIL141W	YIL141W
60	1,540816327	YGL190C	CDC55
61	1,537735849	YNR037C	RSM19
62	1,534090909	YER111C	SWI4
63	1,533333333	YGR171C	MSM1
64	1,530612245	YDR174W	HMO1
65	1,53	YER167W	BCK2
66	1,52	YER151C	UBP3
67	1,518518519	YNL201C	PSY2

68	1,510869565	YIL093C	RSM25
69	1,488888889	YGL107C	RMD9
70	1,479166667	YDR156W	RPA14
71	1,473684211	YPL152W	RRD2
72	1,472222222	YJL124C	LSM1
73	1,456521739	YGR215W	RSM27
74	1,454545455	YJR074W	MOG1
75	1,453703704	YKL113C	RAD27
76	1,453703704	YKR029C	SET3
77	1,448979592	YBL071C	YBL071C
78	1,447916667	YDL134C	PPH21
79	1,443396226	YOR158W	PET123
80	1,44	YPL097W	MSY1
81	1,433962264	YNL235C	YNL235C
82	1,433333333	YGL173C	KEM1
83	1,433333333	YGL194C	HOS2
84	1,431818182	YPR084W	YPR084W
85	1,43	YOR144C	ELG1
86	1,41509434	YMR143W	RPS16A
87	1,409090909	YMR078C	CTF18
88	1,408163265	YBL071C-B	YBL071C-B
89	1,408163265	YDR079C-A	TFB5
90	1,4	YER155C	BEM2
91	1,396226415	YNR032W	PPG1
92	1,395833333	YDL124W	YDL124W
93	1,388888889	YAL004W	YAL004W
94	1,387755102	YNL096C	RPS7B
95	1,386363636	YML109W	ZDS2
96	1,386363636	YPR132W	RPS23B
97	1,385416667	YDR010C	YDR010C
98	1,385416667	YDR360W	OPI7
99	1,380434783	YIL076W	SEC28
100	1,38	YKR082W	NUP133

Supplementary Table 2. Validation of the hits of the screen results presented in Supplementary Table 1.

RANKING IN THE SGA SCREEN	GOI	TESTED MANUALLY USING HOME MADE STRAINS		
		<i>GAL1-KIN4</i> <i>goi</i> Δ Grows on RafGAL Yes or NO	<i>KIN4</i> Over expression LEVELS in <i>GAL1-KIN4</i> <i>goi</i> Δ	<i>goi</i> Δ <i>kar9</i> Δ SPOC deficient Yes or NO
1	BFA1	YES	High	YES
2	BUB2	YES	High	YES
9	HTZ1	YES	High	YES
26	YAF9	YES	High	YES
7	KIN4	YES	Reduced	YES
5	BMH1	YES	High	YES
18	SWC3	YES	High	YES
24	SWR1	YES	High	YES
28	SWC5	YES	High	YES
6	VPS71/SWC6	YES	High	YES
21	ARP6	YES	High	YES
39	CIK1	YES	High	YES
17	VPS72/SWC2	YES	High	YES
11	RTS1	YES	High	YES
83	HOS2	YES	High	YES
71	RRD2	YES	High	YES
27	MCK1	YES	High	YES
49	DCC1	YES	High	YES
36	PPH3	YES	High	YES
43	CTF8	YES	High	YES
87	CTF18	YES/NO	High	YES
45	CHL1	YES	High	YES
69	RMD9	YES	High	YES
98	OPI7	YES	High	YES
72	LSM1	NO	High	YES
100	NUP133	YES	High	YES
78	PPH21	YES	High	YES
60	CDC55	YES	High	YES
30	POL32	NO	High	NO*
76	SET3	YES	High	NO*
31	BRE5	YES	High	NO*
74	MOG1	YES	High	NO*
67	PSY2	YES	High	NO*
82	KEM1	YES	High	NO*
85	ELG1	NO	High	NO*
54	AHC1	YES	High	NO*
40	PPM1	YES	High	NO
84	YPR084W	YES	High	NO
34	YML119W	YES	High	NO
20	SSD1	YES	High	NO
50	CLN3	NO	High	NO
64	HMO1	YES	reduced	NO
65	BCK2	YES	High	NO
4	RAD7	YES	High	NO
47	GMC1	NO	High	NO
92	YDL124W	NO	High	NO
91	PPG1	YES	High	NO
66	UBP3	NO	High	NO
16	DIG1	YES	High	NO
77	YBL071C	NO	High	NO
93	YAL004W	YES	High	NO
62	SWI4	NO	High	NO
38	ECM33	YES	High	NO
N/A	no gene deletion	NO	High	NO
70	RPA14	YES	High	NO
88	YBL071C-B	YES	High	NO
95	ZDS2	YES	High	NO

99	SEC28	NO	High	NO
51	IRA1	NO	High	NO
97	YDR010C	NO	High	NO
59	YIL141W	YES	High	NO
81	YNL235C	NO	High	NO
41	GAS1	YES	reduced	NO
3	SPT4	YES	reduced	NO
37	YDJ1	N/A	reduced	NO
23	ASC1	NO	reduced	NO
19	PGD1	YES	reduced	NO
12	MED2	YES	reduced	NO
75	RAD27	N/A	High	N/A
10	GAL4	N/A	N/A	NO
13	MRPS18	N/A	N/A	N/A
14	GAL3	N/A	N/A	N/A
15	DEG1	N/A	N/A	N/A
22	YOL050C	N/A	N/A	N/A
25	TUF1	N/A	N/A	N/A
29	POP2	N/A	N/A	N/A
32	MRPL25	N/A	N/A	N/A
33	MRPS5	N/A	N/A	N/A
35	ISM1	N/A	N/A	N/A
42	GAL2	N/A	N/A	N/A
44	MRPL19	N/A	N/A	N/A
46	MRPL22	N/A	N/A	N/A
48	YNR036C	N/A	N/A	N/A
52	URA4	N/A	N/A	N/A
53	RPS24B	N/A	N/A	N/A
55	PAT1	N/A	N/A	N/A
56	MRPL51	N/A	N/A	N/A
57	NMA2	N/A	N/A	N/A
58	RSM18	N/A	N/A	N/A
61	RSM19	N/A	N/A	N/A
63	MSM1	N/A	N/A	N/A
68	RSM25	N/A	N/A	N/A
73	RSM27	N/A	N/A	N/A
79	PET123	N/A	N/A	N/A
80	MSY1	N/A	N/A	N/A
86	RPS16A	N/A	N/A	N/A
89	TFB5	N/A	N/A	N/A
90	BEM2	N/A	N/A	N/A
94	RPS7B	N/A	N/A	N/A
96	RPS23B	N/A	N/A	N/A

* On the threshold of SPOC deficiency indexed. We considered this not to be SPOC deficient.

Supplementary Table 3. Genes up and down regulated in *swr1*Δ

Downregulated genes		Upregulated genes	
Gene systematic name	LogFC	Gene systematic name	LogFC
YDR334W	-6,5385734	YJR153W	1,89654327
YHR184W	-4,6075621	YMR095C	1,88707607
YEL059C-A	-3,3038993	YCR021C	1,78595209
YAR033W	-2,9368566	YNL300W	1,72745131
YIL013C	-2,7390804	YJL213W	1,50835455
YPL189W	-2,6421211	YBR072W	1,49914396
YKL178C	-2,6297841	YPR194C	1,49000952
YAR028W	-2,5888564	YBL049W	1,32325826
YAR031W	-2,5853051	YER124C	1,20813507
YAR029W	-2,5565396	YAR073W	1,13898852
YGR053C	-2,4918456	YIL057C	1,0791942
YAL063C-A	-2,4295133	YOR348C	1,06286147
YFR012W-A	-2,4040897	YOR388C	1,05715801
YHR015W	-2,3341142	YHL021C	1,05355814
YNL234W	-2,327311	YER067W	1,04730645
YAR033W	-2,1403547	YGL184C	1,02896632
YCR106W	-2,0990118	YDR171W	1,02274105
YCL073C	-2,0927819	YMR096W	1,02262156
YMR101C	-2,0725517	YOL052C-A	1,01666898
YGL081W	-2,003568	YBR294W	1,00691486
YDL246C	-1,9615132	YKL217W	0,93074219
YOR011W	-1,9563478	YOL119C	0,92512269
YFL011W	-1,9548213	YMR013W-A	0,90918741
YIL172C	-1,9265365	YOR221C	0,89949942
YHL044W	-1,9143621	YPL250C	0,89630726
YDL218W	-1,9002999	YLR438W	0,88265562
YDR541C	-1,8777219	YNL279W	0,8745618
YFR012W	-1,8593011	YHR216W	0,86697536
YCR099C	-1,8384004	YCL027W	0,8299007
YER028C	-1,8330761	YPL163C	0,81583393
YIR042C	-1,8282732	YBR040W	0,8071526
YER060W	-1,6737514	YLR042C	0,80652245
YFR023W	-1,6581395	YNL277W	0,78910618
YHR202W	-1,6483582	YGR224W	0,78397083
YGR052W	-1,6450783	YML047C	0,77957746
YMR319C	-1,6422461	YLL057C	0,77847817
YHL028W	-1,6030227	YFL014W	0,76962798
YCR107W	-1,6021723	YGR040W	0,76248201
YHR054C	-1,5972795	YMR118C	0,75781799
YMR207C	-1,5961434	YBR047W	0,73459516
YHR140W	-1,5890061	YOL007C	0,71673473
YNL012W	-1,5749289	YIR017C	0,70636708
YAL068C	-1,5459296	YJL133C-A	0,69255106
YNR057C	-1,5163844	YNR044W	0,68466146
YDL244W	-1,5143955	YNR034W-A	0,68363664
YKL187C	-1,5114476	YLR089C	0,67643363
YDR403W	-1,4883783	YER079W	0,67599876
YMR138W	-1,4812614	YNL146C-A	0,67398099
YPR007C	-1,4746866	YJR149W	0,66919032
YJL219W	-1,4635751	YKR013W	0,66862619
YER096W	-1,4571513	YDR380W	0,66647875
YLL042C	-1,4522596	YGL117W	0,65699802
YIL176C	-1,4500663	YNR060W	0,64419919
YER187W	-1,4401831	YIL121W	0,64121815
YDR317W	-1,4361042	YGL032C	0,63974239
YER106W	-1,4283661	YOR273C	0,63780162
YLR307W	-1,4223638	YMR056C	0,63585355
YAL049C	-1,4169576	YBL005W-A	0,62912217
YGR249W	-1,4145937	YHL024W	0,62745929
YCR098C	-1,3992913	YLR286C	0,62561285
YIR030C	-1,3984676	YHR143W	0,61382921
YOR032W-A	-1,3947248	YOR193W	0,61125659
YLR461W	-1,3737473	YPR167C	0,61085467
YOL152W	-1,3649081	YMR042W	0,60577182
YLL064C	-1,340542	YBR067C	0,60565724
YHR160C	-1,34	YCL030C	0,60517029

YAL067C	-1,3390878
YGR174W-A	-1,3205817
YGR059W	-1,2958727
YLR040C	-1,2867513
YIR014W	-1,2732854
YKL071W	-1,2652221
YBR184W	-1,252072
YPL222W	-1,2508471
YFL003C	-1,245862
YIL120W	-1,2236276
YJR118C	-1,2211431
YJL218W	-1,2099693
YPR193C	-1,1999785
YMR323W	-1,1929296
YOL084W	-1,1793757
YOL156W	-1,1410139
YER014W	-1,1399669
YKL018C-A	-1,1399297
YOR394W	-1,1349084
YGR263C	-1,1313523
YIL139C	-1,1286192
YHR053C	-1,1250637
YIL024C	-1,1224717
YMR174C	-1,1208188
YGR206W	-1,1201421
YDR414C	-1,1191345
YIL085C	-1,1163246
YAL037W	-1,1090691
YOL083W	-1,1012543
YHL012W	-1,0993357
YGL033W	-1,0789793
YFR047C	-1,0772107
YOL163W	-1,0677414
YHR153C	-1,0634866
YCL048W	-1,0543301
YGL157W	-1,0531725
YCR100C	-1,0476346
YDR506C	-1,0468399
YNL014W	-1,0455845
YDR540C	-1,0309612
YOR389W	-1,0176178
YLR080W	-1,0121557
YBR240C	-1,0117179
YJL105W	-1,0088679
YJL037W	-1,0009966
YKR097W	-0,9978225
YGR225W	-0,9953216
YHR057C	-0,9915452
YEL070W	-0,98921
YHR176W	-0,9768496
YLR423C	-0,9712886
YGL258W	-0,9704015
YAL064W	-0,9687102
YMR018W	-0,9674251
YER001W	-0,9654614
YPL277C	-0,9611497
YHR048W	-0,9555633
YPL278C	-0,9546064
YIR027C	-0,9544042
YLR265C	-0,9517287
YOR012W	-0,9483636
YIL011W	-0,9399421
YOR280C	-0,9371298
YDL210W	-0,9362812
YER037W	-0,9349547
YOR336W	-0,926405
YIL173W	-0,9250223
YCR105W	-0,9230744
YJL132W	-0,9147143

YJR148W	0,60114214
YBR208C	0,59986828
YOL164W	0,59190124
YNL042W-B	0,58667671
YHR018C	0,58550048
YDR253C	0,58478131
YNL046W	0,58459257
YMR194C-B	0,58404194
YJR010W	0,58141086
YLR452C	0,57934593
YJR025C	0,57691598
YML007C-A	0,57199132
YBR083W	0,57025963
YLR329W	0,56546615
YDR256C	0,5612172
YMR244C-A	0,55421996
YER180C-A	0,54940837
YBL075C	0,54835129
YLR154W-E	0,54517035
YGL125W	0,54506462
YCR037C	0,54392192
YER175C	0,54346071
YPL192C	0,54338988
YLR437C	0,54235108
YGR142W	0,53890558
YDL222C	0,53648438
YLR090W	0,53439653
YGR006W	0,53252395
YJR086W	0,52987801
YHR137W	0,52696991
YMR170C	0,52422979
YLR193C	0,52098665
YDR461W	0,51560972
YOR201C	0,50770794
YDR345C	0,50765371
YER081W	0,50751337
YGR121C	0,50716322
YOR377W	0,5015104
YJR109C	0,50129658

YFL059W	-0,914592
YOR265W	-0,9097838
YDR031W	-0,9062311
YDR367W	-0,9046827
YOR028C	-0,9036168
YBR148W	-0,8951475
YOL159C	-0,8890882
YFL060C	-0,8774722
YDR488C	-0,8762823
YMR282C	-0,8758266
YDL039C	-0,8757213
YMR025W	-0,8711721
YER115C	-0,8693665
YOL102C	-0,8693037
YJR036C	-0,8628285
YGL176C	-0,8614619
YIL165C	-0,8513302
YOL065C	-0,844435
YGL158W	-0,8434555
YDL093W	-0,8402838
YDL091C	-0,8377156
YNR074C	-0,8344569
YIL072W	-0,8288043
YPL165C	-0,8256284
YEL016C	-0,8222012
YKL084W	-0,8221789
YCR104W	-0,8187336
YBR054W	-0,8185896
YNR075W	-0,8148899
YDR131C	-0,8138919
YDR030C	-0,8073936
YDL206W	-0,8062287
YMR120C	-0,8014758
YGR066C	-0,8002204
YPL041C	-0,798758
YDL169C	-0,7923561
YOL096C	-0,7913625
YMR017W	-0,7839113
YBR250W	-0,7838547
YGL175C	-0,7799963
YOL159C-A	-0,779477
YKL133C	-0,7714711
YOL015W	-0,7670922
YOR107W	-0,7616232
YML037C	-0,7599629
YNL128W	-0,7597865
YJL216C	-0,7501661
YNL195C	-0,749173
YOR306C	-0,746923
YOL162W	-0,7457476
YPL040C	-0,7436372
YFL020C	-0,7425835
YNL040W	-0,7403562
YIL037C	-0,7379125
YIR036C	-0,7355681
YKL218C	-0,7353634
YCR075W-A	-0,7274257
YDL104C	-0,7258345
YDL154W	-0,7248594
YER044C-A	-0,7244206
YLR015W	-0,7243628
YER014C-A	-0,7238777
YCR102C	-0,7236722
YLL012W	-0,7177031
YHL035C	-0,7153112
YDL149W	-0,7069972
YIR039C	-0,7020672
YKR044W	-0,7013732
YGL243W	-0,6974974

YGL015C	-0,6973532
YPR117W	-0,6952833
YOL155W-A	-0,6929706
YHR035W	-0,6791498
YHR157W	-0,678842
YIL003W	-0,6785145
YNL193W	-0,6779928
YBR076W	-0,6764242
YHR075C	-0,6756944
YJL045W	-0,6743199
YPR006C	-0,6683459
YOR328W	-0,6584678
YMR244W	-0,6553821
YMR322C	-0,6545634
YBR201W	-0,6532274
YKL132C	-0,6522066
YPR058W	-0,6502947
YKL134C	-0,6494774
YDR111C	-0,6480354
YMR292W	-0,6468221
YMR106C	-0,6458555
YEL019C	-0,6438408
YNL237W	-0,6405828
YHR210C	-0,6402836
YOR177C	-0,6395592
YGL229C	-0,6390038
YJL131C	-0,6345492
YCL012C	-0,6343899
YIR028W	-0,6293546
YPL264C	-0,6283318
YNL321W	-0,6240044
YLR231C	-0,6229824
YDR147W	-0,6208159
YHL047C	-0,6170692
YJL116C	-0,6166172
YPL096C-A	-0,6159837
YOL158C	-0,6147814
YDR538W	-0,6123948
YNL327W	-0,6123768
YOR378W	-0,6120364
YNL328C	-0,6108799
YOR192C	-0,6095354
YIL164C	-0,6090352
YDR270W	-0,6077477
YGR108W	-0,605489
YMR234W	-0,6044316
YKR050W	-0,6028761
YPL194W	-0,6005777
YAL008W	-0,5994401
YEL064C	-0,59822
YDR281C	-0,5977602
YDR104C	-0,5968039
YDR236C	-0,5961996
YOR111W	-0,5945684
YER060W-A	-0,5926014
YGR110W	-0,5923455
YMR069W	-0,5920686
YFL012W	-0,5893297
YHR076W	-0,5892859
YDR018C	-0,5888837
YLL055W	-0,5844983
YNL273W	-0,5842511
YML104C	-0,5835521
YNL217W	-0,5829715
YGR067C	-0,5829424
YOR067C	-0,5828748
YDR434W	-0,5786731
YBR128C	-0,5778219
YDL048C	-0,5768226

YFL055W	-0,5750546
YPL208W	-0,5732035
YDR539W	-0,5709924
YHR022C	-0,5704936
YLR174W	-0,5691907
YDR254W	-0,5672647
YAR035W	-0,5670323
YJL193W	-0,563747
YLR214W	-0,5584862
YDR305C	-0,5571197
YMR156C	-0,5551857
YDR518W	-0,5550451
YHL014C	-0,5546195
YDR435C	-0,5542059
YHR033W	-0,5541266
YBL013W	-0,5528519
YKR083C	-0,5524848
YGL121C	-0,5505397
YKR098C	-0,5476492
YGR238C	-0,5470881
YJL016W	-0,5461001
YBR092C	-0,5454458
YNL065W	-0,5446834
YPL060W	-0,5445991
YHR031C	-0,5444109
YKL162C	-0,5423191
YIL067C	-0,5380421
YGR012W	-0,535979
YGL247W	-0,5357961
YPR124W	-0,5348256
YGR247W	-0,5339059
YGL263W	-0,5311969
YML011C	-0,5308738
YDR125C	-0,5286618
YER062C	-0,5252302
YGL053W	-0,5225029
YBR157C	-0,5220639
YOR062C	-0,5217279
YPL067C	-0,5206887
YEL058W	-0,51974
YHL017W	-0,5192369
YMR250W	-0,5191891
YPR160W	-0,5190661
YKR088C	-0,5181238
YKL072W	-0,5159641
YDR323C	-0,5152466
YMR301C	-0,5144405
YER039C-A	-0,514271
YDR107C	-0,5121477
YPR185W	-0,5108014
YBL111C	-0,5099349
YAR023C	-0,5093924
YIL064W	-0,5082998
YCL033C	-0,5082457
YMR035W	-0,5077941
YNL200C	-0,5074903
YBR169C	-0,5071487
YNL223W	-0,5064901
YLL049W	-0,5061019
YAL064W-B	-0,504473
YNR063W	-0,5024867
YBR136W	-0,5022399
YOR321W	-0,5019829
YNL173C	-0,5009126
YDR369C	-0,5000159

Supplementary Table 4. Gene ontology analysis of differentially regulated mRNAs by SWR1-C*.

Down regulated genes						
GO number	GO category name	level	% sample	% yeast	p value	
GO:0055085	transmembrane transport	5	9,79228487	3,58794674	3,15E-08	
GO:0051321	meiotic cell cycle	3	6,23145401	1,89208129	2,79E-07	
GO:0016050	vesicle organization	5	2,07715134	0,26629292	1,09E-06	
GO:0006811	ion transport	5	5,34124629	1,66783462	2,53E-06	
GO:0030435	sporulation resulting in formation of a cellular spore	4	4,74777448	1,52768045	1,19E-05	
GO:0055072	iron ion homeostasis	10	2,07715134	0,39243167	3,09E-05	
GO:0032120	ascospore-type prospore membrane assembly	4	1,48367953	0,22424667	5,68E-05	
GO:0044718	siderophore transmembrane transport	7	0,89020772	0,0840925	6,80E-05	
GO:0015757	galactose transmembrane transport	9	0,89020772	0,0840925	6,80E-05	
GO:0030476	ascospore wall assembly	4	2,67062315	0,68675543	7,64E-05	
GO:0015677	copper ion import	10	1,18694362	0,15416959	8,33E-05	
GO:0044805	late nucleophagy	6	1,48367953	0,23826209	8,44E-05	
GO:0006825	copper ion transport	9	1,18694362	0,168185	0,000137291	
GO:0042138	meiotic DNA double-strand break formation	5	1,18694362	0,18220042	0,000214505	
GO:0000422	autophagy of mitochondrion	5	2,07715134	0,53258584	0,000320853	
GO:0007130	synaptonemal complex assembly	5	1,18694362	0,21023125	0,000462764	
GO:0006879	cellular iron ion homeostasis	9	2,07715134	0,58864751	0,000656576	
GO:0045143	homologous chromosome segregation	5	0,89020772	0,14015417	0,000818356	
GO:0034220	ion transmembrane transport	6	0,89020772	0,14015417	0,000818356	
GO:0006855	drug transmembrane transport	6	1,48367953	0,35038542	0,000875825	
GO:0034497	protein localization to phagophore assembly site	6	1,18694362	0,23826209	0,000881814	
GO:0031505	fungal-type cell wall organization	5	4,45103858	2,03223546	0,001278219	
GO:0009228	thiamine biosynthetic process	7	0,89020772	0,168185	0,001788938	
GO:0007039	protein catabolic process in the vacuole	7	0,89020772	0,168185	0,001788938	
GO:0006486	protein glycosylation	5	2,37388724	0,86895585	0,002324838	
GO:0055088	lipid homeostasis	6	0,89020772	0,18220042	0,002488686	
GO:0034727	piecemeal microautophagy of the nucleus	6	1,78041543	0,5746321	0,002761475	
GO:0000723	telomere maintenance	6	1,78041543	0,60266293	0,003650747	
GO:0006807	nitrogen compound metabolic process	3	0,89020772	0,21023125	0,004407847	
GO:0008645	hexose transmembrane transport	8	0,89020772	0,22424667	0,005661371	
GO:0015755	fructose transmembrane transport	9	0,89020772	0,22424667	0,005661371	
GO:0015761	mannose transmembrane transport	9	0,89020772	0,22424667	0,005661371	
GO:0007131	reciprocal meiotic recombination	4	1,78041543	0,70077085	0,008536277	
GO:0098704	carbohydrate import across plasma membrane	7	0,89020772	0,25227751	0,008834229	
GO:0006974	cellular response to DNA damage stimulus	5	5,04451039	2,94323756	0,010192854	
GO:0006493	protein O-linked glycosylation	6	0,89020772	0,26629292	0,010781324	
GO:1904659	glucose transmembrane transport	9	0,89020772	0,26629292	0,010781324	
GO:0006914	autophagy	4	2,07715134	0,9110021	0,010955727	
GO:0006281	DNA repair	6	4,45103858	2,57883672	0,013180765	
GO:0030437	ascospore formation	4	1,78041543	0,78486335	0,015586105	
GO:0000045	autophagosome assembly	6	0,89020772	0,35038542	0,028186284	
GO:0006303	double-strand break repair via nonhomologous end joining	8	0,89020772	0,40644709	0,045709211	
Upregulated genes.						
GO number	GO category name	level	% sample	% yeast	p value	
GO:0055114	oxidation-reduction process	3	12,3809524	4,69516468	0,000363785	
GO:0055085	transmembrane transport	5	10,4761905	3,58794674	0,000352291	
GO:0008652	cellular amino acid biosynthetic process	5	9,52380952	1,35949544	1,43E-07	
GO:0009086	methionine biosynthetic process	7	5,71428571	0,46250876	3,81E-07	
GO:0034605	cellular response to heat	5	4,76190476	0,67274001	6,54E-05	
GO:0006457	protein folding	3	3,80952381	1,21934128	0,008927792	
GO:0071555	cell wall organization	4	3,80952381	1,30343378	0,011720384	
GO:0007155	cell adhesion	3	2,85714286	0,09810792	1,50E-06	
GO:0019344	cysteine biosynthetic process	7	2,85714286	0,168185	2,00E-05	
GO:0071470	cellular response to osmotic stress	5	2,85714286	0,19621584	3,96E-05	
GO:0000920	septum digestion after cytokinesis	3	2,85714286	0,25227751	0,000115625	
GO:0000750	pheromone-dependent signal transduction involved in cell-cell communication	5	2,85714286	0,32235459	0,00031617	
GO:0019236	response to pheromone	5	2,85714286	0,43447793	0,001026374	
GO:0009058	biosynthetic process	3	2,85714286	0,44849334	0,001159845	
GO:0001403	invasive growth in response to glucose limitation	7	2,85714286	0,60266293	0,003517113	
GO:0007124	pseudohyphal growth	4	2,85714286	0,77084793	0,008498011	

*Results include categories with more than 3 genes and with a p value <0.05, GO level 1 is excluded
GO analysis performed using YEASTRACT. Monteiro et al (2020)

Supplementary Table 5. Hits of the SGA screen which identified gene deletions that cause lethality of *KIN4* overexpression in *swr1Δ* background.

ranking of the hit	Q2/Q1*	ORF systematic name	standard name
1	4,09876543	YDR245W	MNN10
2	3,95659722	YLR337C	VRP1
3	3,49665444	YKR061W	KTR2
4	2,28566529	YOL076W	MDM20
5	2,26702606	YEL036C	ANP1
6	2,04469841	YDR516C	EMI2
7	1,98636549	YNL054W	VAC7
8	1,98333333	YBR140C	IRA1
9	1,95535714	YHR023W	MYO1
10	1,9534626	YMR001c-A	YMR001C-A
11	1,94736842	YGR135W	PRE9
12	1,92	YGL066W	SGF73
13	1,81993355	YDR458C	HEH2
14	1,80779221	YFL018C	LPD1
15	1,79590229	YBR019C	GAL10
16	1,77943925	YHR030C	SLT2
17	1,70447318	YOR195W	SLK19
18	1,69798475	YMR267W	PPA2
19	1,64643949	YHR152W	SPO12
20	1,64109731	YDR427W	RPN9
21	1,63206181	YDR448W	ADA2
22	1,63087607	YMR231W	PEP5
23	1,60649638	YJL095W	BCK1
24	1,59552303	YMR144W	YMR144W
25	1,59223301	YMR032W	HOF1
26	1,58245614	YBR058C	UBP14
27	1,57647971	YML115C	VAN1
28	1,56237817	YCL010C	SGF29
29	1,55789086	YLR079W	SIC1
30	1,55323419	YKR048C	NAP1
31	1,55181936	YBL061C	SKT5
32	1,53888813	YER061C	CEM1
33	1,53222376	YJR054W	YJR054W
34	1,5084473	YKR042W	UTH1
35	1,5029838	YLR331C	JIP3
36	1,49920388	YDR340W	YDR340W
37	1,48997652	YKL074C	MUD2
38	1,48469128	YNL229C	URE2
39	1,48126673	YBR023C	CHS3
40	1,47768879	YLR332W	MID2
41	1,47138101	YOR304W	ISW2
42	1,47016043	YLR425W	TUS1
43	1,46885183	YNL079C	TPM1
44	1,46862483	YIL131C	FKH1
45	1,45204535	YJL183W	MNN11
46	1,4505848	YBR026C	ETR1
47	1,44831591	YPL047W	SGF11
48	1,44346934	YIL125W	KGD1
49	1,44224924	YJR091C	JSN1
50	1,43177746	YMR100W	MUB1
51	1,42342342	YAL024C	LTE1
52	1,41667286	YKL075C	YKL075C
53	1,41440041	YEL007W	YEL007W
54	1,41407577	YBR174C	YBR174C
55	1,41025641	YBR200W	BEM1
56	1,39380531	YLR006C	SSK1
57	1,38832508	YJL099W	CHS6
58	1,38366013	YER088C	DOT6
59	1,37777778	YBR173C	UMP1
60	1,37585574	YPL139C	UME1
61	1,36861479	YBR058c-A	TSC3
62	1,36827273	YLR371W	ROM2
63	1,36804916	YML036W	CGH121
64	1,36752381	YDR148C	KGD2
65	1,36715774	YLR386W	VAC14
66	1,36686235	YLR021W	IRC25
67	1,34852507	YNL234W	YNL234W
68	1,34508772	YAL010C	MDM10
69	1,34459627	YLR319C	BUD6

*median colony size of *swr1Δ goiΔ* divided by median colony size of *GAL1-KIN4 swr1Δ goiΔ* on raffinose/galactose

Supplementary Table 6. Validation of the hits of the screen results presented in Supplementary Table 5

the hit ranking of <i>goi</i> Δ	systematic name ORF GOI	name standard GOI	TESTED MANUALLY USING HOME MADE STRAINS		
			under <i>KIN4</i> overexpressing conditions <i>GAL1-KIN4 swr1</i> Δ <i>goi</i> Δ lethality of home-made strains	name standard GOI	<i>swr1</i> Δ <i>kar9</i> Δ <i>goi</i> Δ SPOC deficiency
43	YNL079C	TPM1	YES	TPM1	YES
4	YOL076W	MDM20	YES	MDM20	YES
62	YLR371W	ROM2	NO	ROM2	YES
2	YLR337C	VRP1	N/A	VRP1	YES
65	YLR386W	VAC14	YES	VAC14	YES
7	YNL054W	VAC7	YES	VAC7	YES
31	YBL061C	SKT5	YES	SKT5	YES
51	YAL024C	LTE1	YES	LTE1	YES
48	YIL125W	KGD1	YES	KGD1	YES
6	YDR516C	EMI2	NO	EMI2	YES
14	YFL018C	LPD1	YES	LPD1	YES
39	YBR023C	CHS3	YES	CHS3	YES
25	YMR032W	HOF1	YES	HOF1	YES
9	YHR023W	MYO1	NO	MYO1	YES
28	YCL010C	SGF29	YES	SGF29	YES
69	YLR319C	BUD6	YES	BUD6	YES
30	YKR048C	NAP1	YES	NAP1	YES
58	YER088C	DOT6	YES	DOT6	YES
44	YIL131C	FKH1	YES	FKH1	YES
23	YJL095W	BCK1	YES	BCK1	YES
24	YMR144W	YMR144W	YES	YMR144W	YES
21	YDR448W	ADA2	N/A	ADA2	YES
1	YDR245W	MNN10	YES	MNN10	YES
34	YKR042W	UTH1	YES	UTH1	YES
60	YPL139C	UME1	YES	UME1	YES
16	YHR030C	SLT2	YES	SLT2	REDUCED
29	YLR079W	SIC1	YES	SIC1	REDUCED
12	YGL066W	SGF73	YES	SGF73	NO
17	YOR195W	SLK19	YES	SLK19	NO
11	YGR135W	PRE9	YES	PRE9	NO
19	YHR152W	SPO12	YES	SPO12	NO
3	YKR061W	KTR2	N/A	KTR2	N/A
5	YEL036C	ANP1	YES	ANP1	N/A
8	YBR140C	IRA1	N/A	IRA1	N/A
10	YMR001c-A	YMR001C-A	N/A	YMR001C-A	N/A
13	YDR458C	HEH2	N/A	HEH2	N/A
15	YBR019C	GAL10	N/A	GAL10	N/A
18	YMR267W	PPA2	N/A	PPA2	N/A
20	YDR427W	RPN9	N/A	RPN9	N/A
22	YMR231W	PEP5	N/A	PEP5	N/A
26	YBR058C	UBP14	N/A	UBP14	N/A
27	YML115C	VAN1	N/A	VAN1	N/A
32	YER061C	CEM1	N/A	CEM1	N/A
33	YJR054W	YJR054W	N/A	YJR054W	N/A
35	YLR331C	JIP3	N/A	JIP3	N/A
36	YDR340W	YDR340W	N/A	YDR340W	N/A
37	YKL074C	MUD2	N/A	MUD2	N/A
38	YNL229C	URE2	N/A	URE2	N/A
40	YLR332W	MID2	N/A	MID2	N/A
41	YOR304W	ISW2	N/A	ISW2	N/A
42	YLR425W	TUS1	N/A	TUS1	N/A
45	YJL183W	MNN11	N/A	MNN11	N/A
46	YBR026C	ETR1	N/A	ETR1	N/A
47	YPL047W	SGF11	YES	SGF11	N/A
49	YJR091C	JSN1	N/A	JSN1	N/A
50	YMR100W	MUB1	N/A	MUB1	N/A
52	YKL075C	YKL075C	N/A	YKL075C	N/A
53	YEL007W	YEL007W	N/A	YEL007W	N/A
54	YBR174C	YBR174C	N/A	YBR174C	N/A
55	YBR200W	BEM1	YES	BEM1	N/A
56	YLR006C	SSK1	N/A	SSK1	N/A
57	YJL099W	CHS6	N/A	CHS6	N/A
59	YBR173C	UMP1	N/A	UMP1	N/A
61	YBR058c-A	TSC3	N/A	TSC3	N/A
63	YML036W	CGI121	N/A	CGI121	N/A
64	YDR148C	KGD2	N/A	KGD2	N/A
66	YLR021W	IRC25	N/A	IRC25	N/A
67	YNL234W	YNL234W	N/A	YNL234W	N/A
68	YAL010C	MDM10	N/A	MDM10	N/A

Supplementary Table 7.Table of strains used in the study

Strain Name	Description	Reference*
ESM356-1	<i>MATa ura3-52 leu2Δ1 his3Δ200 trp1Δ63</i>	Pereira et al., 2001
YPH499	<i>MATa ura3-52 lys2-801 amber ade2-101 ochre trp1Δ63 his3Δ200 leu2Δ1</i>	Sikorski and Hieter, 1989
Y8205	<i>Mat alpha can1Δ::STE2pr-Sp_his5 lyp1Δ::STE3pr-LEU2 his3Δ1 leu2Δ0 ura3Δ0</i>	Tong and Boone, 2006
AKY184-1	<i>ESM356-1 SPC42-EQFP611-KanMX6 Nat-GAL1-GFP-KIN4 ura3::pMET25-KIN4 yaf9Δ::kITRP.</i>	This study
AKY185-1	<i>ESM356-1 SPC42-EQFP611-KanMX6 Nat-GAL1-GFP-KIN4 ura3::pMET25-KIN4 swc2Δ::kITRP.</i>	This study
AKY186-1	<i>ESM356-1 SPC42-EQFP611-KanMX6 Nat-GAL1-GFP-KIN4 ura3::pMET25-KIN4 swc3Δ::kITRP.</i>	This study
AKY187-1	<i>ESM356-1 SPC42-EQFP611-KanMX6 Nat-GAL1-GFP-KIN4 ura3::pMET25-KIN4 swc6Δ::kITRP.</i>	This study
AKY188-1	<i>ESM356-1 SPC42-EQFP611-KanMX6 Nat-GAL1-GFP-KIN4 ura3::pMET25-KIN4 swc5Δ::kITRP</i>	This study
UJY037-3	<i>ESM356-1 SPC42-EQFP611-KanMX6 Nat-GAL1-GFP-KIN4 ura3::pMET25-KIN4 swr1Δ::kITRP1</i>	This study
AKY301-1	<i>ESM356-1 SPC42-EQFP611-KanMX6 Nat-GAL1-GFP-KIN4 ura3::pMET25-KIN4 nph10Δ::kITRP1</i>	This study
AKY302-1	<i>ESM356-1 SPC42-EQFP611-KanMX6 Nat-GAL1-GFP-KIN4 ura3::pMET25-KIN4 ies3Δ::kITRP1</i>	This study
UJY011-4	<i>ESM356-1 SPC42-EQFP611-KanMX6 Nat-GAL1-GFP-KIN4 ura3::pMET25-KIN4.</i>	Caydasi et al., 2010
UJY013-2	<i>ESM356-1 SPC42-EQFP611-KanMX6 Nat-GAL1-GFP-KIN4 ura3::pMET25-KIN4 bfa1Δ::kITRP1</i>	Caydasi et al., 2010
UJY014-1	<i>ESM356-1 SPC42-EQFP611-KanMX6 Nat-GAL1-GFP-KIN4 ura3::pMET25-KIN4 bub2Δ::hphNT1</i>	Caydasi et al., 2010
AKY1052-1	<i>ESM356-1 SPC42-EQFP611-KanMX6 Nat-GAL1-GFP-KIN4 ura3::pMET25-KIN4 sir2Δ::his3MX6</i>	This study
AKY1053-1	<i>ESM356-1 SPC42-EQFP611-KanMX6 Nat-GAL1-GFP-KIN4 ura3::pMET25-KIN4 swr1Δ::kITRP1 sir2Δ::his3MX6</i>	This study
AKY1044-1	<i>ESM356-1 SPC42-EQFP611-KanMX6 Nat-GAL1-GFP-KIN4 ura3::pMET25-KIN4 yku80Δ::his3MX6</i>	This study
AKY1045-1	<i>ESM356-1 SPC42-EQFP611-KanMX6 Nat-GAL1-GFP-KIN4 ura3::pMET25-KIN4 swr1Δ::kITRP1 yku80Δ::his3MX6</i>	This study
AKY419-1	<i>ESM356-5 BFA1-3HA-His3MX6 swr1Δ::kanMX6</i>	This study
AKY417-1	<i>ESM356-5 BFA1-3HA-His3MX6 kin4Δ::kanMX6</i>	Caydasi et al., 2010
GPY1070-1	<i>ESM356-5 BFA1-3HA-His3MX6</i>	Caydasi et al., 2010
AKY092-1	<i>ESM356-1 BFA1-GFP-KanMX6 SPC42-eqFP-hphNT1 kar9Δ::kITRP1 swr1Δ::his3MX6</i>	This study
GPY1033	<i>ESM356-1 KIN4-GFP-His3MX6 SPC42-eqFP-natNT2</i>	Pereira and Schiebel 2005
AKY404-1	<i>ESM356-1 KIN4-GFP-His3MX6 SPC42-eqFP-natNT2 rts1Δ::kITRP1</i>	Caydasi et al., 2010
AKY403-1	<i>ESM356-1 KIN4-GFP-His3MX6 SPC42-eqFP-natNT2 swr1Δ::kITRP1</i>	This study
AKY477-1	<i>ESM356-1 KIN4-T209A-6HA-kanMX6-LEU2-kin4BΔ::his3MX6</i>	This study
AKY413-1	<i>ESM356-1 KIN4-6HA-hphNT1 swr1Δ::kITRP1</i>	This study
ESM2326-1	<i>ESM356-1 KIN4-6HA-hphNT1</i>	Caydasi et al., 2010
AKY1729-1	<i>ESM356-1 PDS1-3HA-his3MX6</i>	Caydasi et al., 2014
AKY1730-1	<i>ESM356-1 bub2Δ::kITRP PDS1-3HA-his3MX6</i>	This study
AKY1731-1	<i>ESM356-1 swr1Δ::kITRP1 PDS1-3HA-his3MX6</i>	This study
DLY47-1	<i>ESM356-1 kin4Δ:: kITRP1</i>	Caydasi et al., 2010
AKY1732-1	<i>ESM356-1 kin4Δ:: kITRP1 PDS1-3HA-his3MX6</i>	Caydasi et al., 2014
AKY308-1	<i>ESM356-1 swr1Δ::kITRP1</i>	This study
AKY312-1	<i>ESM356-1 bub2Δ::kITRP1</i>	Caydasi et al., 2010
AKY1464-1	<i>YPH499 ura3::URA3-GAL1-KIN4</i>	This study
AKY1465-1	<i>YPH499 dbf2-2 ura3::URA3-GAL1-KIN4</i>	This study
AKY1466-1	<i>YPH499 mob1-67 ura3::URA3-GAL1-KIN4</i>	This study

AKY1467-1	YPH499 <i>cdc15-1 ura3::URA3-GAL1-KIN4</i>	This study
AKY1468-1	YPH499 <i>cdc14-2 ura3::URA3-GAL1-KIN4</i>	This study
AKY1469-1	YPH499 <i>tem1-3 ura3::URA3-GAL1-KIN4</i>	This study
AKY1505-1	YPH499 <i>ura3::URA3-GAL1-KIN4 swr1Δ::kITRP1</i>	This study
AKY1502-1	YPH499 <i>ura3::URA3-GAL1-KIN4 bub2Δ::kITRP1</i>	This study
AKY1507-1	YPH499 <i>dbf2-2 ura3::URA3-GAL1-KIN4 bub2Δ::kITRP1</i>	This study
AKY1508-1	YPH499 <i>dbf2-2 ura3::URA3-GAL1-KIN4 swr1Δ::kITRP1</i>	This study
AKY1510-1	YPH499 <i>mob1-67 ura3::URA3-GAL1-KIN4 bub2Δ::kITRP1</i>	This study
AKY1511-1	YPH499 <i>mob1-67 ura3::URA3-GAL1-KIN4 swr1Δ::kITRP1</i>	This study
AKY1513-1	YPH499 <i>cdc15-1 ura3::URA3-GAL1-KIN4 bub2Δ::kITRP1</i>	This study
AKY1516-1	YPH499 <i>cdc15-1 ura3::URA3-GAL1-KIN4 swr1Δ::kITRP1</i>	This study
AKY1517-1	YPH499 <i>cdc14-2 ura3::URA3-GAL1-KIN4 bub2Δ::kITRP1</i>	This study
AKY1520-1	YPH499 <i>cdc14-2 ura3::URA3-GAL1-KIN4 swr1Δ::kITRP1</i>	This study
AKY1521-1	YPH499 <i>tem1-3 ura3::URA3-GAL1-KIN4 bub2Δ::kITRP1</i>	This study
AKY1524-1	YPH499 <i>tem1-3 ura3::URA3-GAL1-KIN4 swr1Δ::kITRP1</i>	This study
ESM1249-1	YPH499 <i>tem1-3</i>	Caydasi et al., 2017
ESM1276-1	YPH499 <i>cdc14-2</i>	Caydasi et al., 2017
ESM1278-1	YPH499 <i>cdc15-1</i>	Caydasi et al., 2017
CVY16-1	YPH499 <i>cdc14-1</i>	Caydasi et al., 2017
ESM1309-1	YPH499 <i>dbf2-2</i>	Caydasi et al., 2017
ESM1361-1	YPH499 <i>mob1-67</i>	Caydasi et al., 2017
AKY1460-1	YPH499 <i>swr1Δ::kITRP1</i>	This study
AKY508-1	YPH499 <i>cdc14-2 swr1Δ::his3MX6</i>	This study
AKY509-1	YPH499 <i>tem1-3 swr1Δ::his3MX6</i>	This study
AKY510-1	YPH499 <i>cdc15-1 swr1Δ::his3MX6</i>	This study
AKY511-1	YPH499 <i>cdc14-1 swr1Δ::his3MX6</i>	This study
AKY1462-1	YPH499 <i>dbf2-2 swr1Δ::his3MX6</i>	This study
AKY1463-1	YPH499 <i>mob1-67 swr1Δ::his3MX6</i>	This study
AKY1608-1	ESM356-1 <i>CDC14-GFP-kanMX6 MYO1-3Cherry-hphNT1 kar9Δ::kITRP1</i>	This study
AKY1610-1	ESM356-1 <i>CDC14-GFP-kanMX6 MYO1-3Cherry-hphNT1 swr1Δ::kITRP1pRS316-KAR9 kar9Δ::his3MX6</i>	This study
AKY1611-1	YPH499 <i>cdc15-1 CDC14-GFP-hphNT1</i>	This study
AKY1612-1	YPH499 <i>cdc15-1 swr1Δ::His3MX6 CDC14-GFP-hphNT1</i>	This study
AKY1641-1	YPH499 <i>cdc15-1 swr1Δ::His3MX6 CDC14-GFP-hphNT1 ura3::URA3-mCherry-TUB1</i>	This study
AKY1642-1	YPH499 <i>cdc15-1 CDC14-GFP-hphNT ura3::URA3-mCherry-TUB1</i>	This study
AKY1643-1	YPH499 <i>cdc15-1 CDC14-GFP-hphNT ura3::URA3-mCherry-TUB1 swr1Δ::his3MX6</i>	This study
AKY1644-1	YPH499 <i>cdc15-1 CDC14-GFP-hphNT ura3::URA3-mCherry-TUB1 spo12Δ::his3MX6</i>	This study
AKY346-1	YPH499 <i>kar9Δ::kITRP1 pRS316-KAR9 ade2::ADE2-GFP-TUB1</i>	Caydasi et al., 2014
AKY351-1	YPH499 <i>kar9Δ::kITRP1 pRS316-KAR9 kin4Δ::his3MX6 ade2::ADE2-GFP-TUB1</i>	Caydasi et al., 2014
AKY354-1	YPH499 <i>kar9Δ::kITRP1 pRS316-KAR9 swr1Δ::his3MX6 ade2::ADE2-GFP-TUB1</i>	This study
AKY741-1	YPH499 <i>cdc15-1 ade2::ADE2-GFP-TUB1 kin4Δ::his3MX6</i>	This study

AKY745-1	YPH499 <i>cdc15-1 ade2::ADE2-GFP-TUB1 swr1Δ::his3MX6</i>	This study
AKY690-1	YPH499 <i>cdc15-1 ade2::ADE2-GFP-TUB1</i>	This study
TAY258	YPH499 <i>ura3::URA3-GFP-TUB1</i>	This study
AKY1907	YPH499 <i>kar9Δ::klTRP1 pRS316-KAR9 kin4Δ::his3MX6 ade2::ADE2-GFP-TUB1 slt2Δ::hphNT1</i>	This study
AKY1809-1	YPH499 <i>kar9Δ::klTRP1 pRS316-KAR9 kin4Δ::his3MX6 ade2::ADE2-GFP-TUB1 sgf73Δ::natNT2</i>	This study
AKY3076-1	YPH499 <i>kar9Δ::klTRP1 pRS316-KAR9 kin4Δ::his3MX6 ade2::ADE2-GFP-TUB1 pre9Δ::hphNT1</i>	This study
AKY2979-1	YPH499 <i>kar9Δ::klTRP1 pRS316-KAR9 kin4Δ::his3MX6 ade2::ADE2-GFP-TUB1 sic1Δ::natNT1</i>	This study
AKY1279	YPH499 <i>kar9Δ::klTRP1 pRS316-KAR9 kin4Δ::his ade2::ADE2-GFP-TUB1 spo12Δ::hphNT1</i>	This study
AKY1321-1	YPH499 <i>kar9Δ::klTRP1 pRS316-KAR9 kin4Δ::his3MX6 ade2::ADE2-GFP-TUB1 slk19Δ::hphNT1</i>	This study
ESM356-5	<i>MATa ura3-52 his3Δ200</i>	Bertazzi et al., 2011
AKY1296	Y8205 <i>ura3Δ::URA3-GAL1-KIN4</i>	This study
AKY1307	Y8205 <i>ura3Δ::URA3-GAL1-KIN4 swr1Δ::hphNT1</i>	This study
AKY1346	Y8205 <i>swr1Δ::hphNT1</i>	This study
AKY1733	YPH499 <i>cdc15-1 Sli15-GFP-klTRP1 ura3::URA3-mcherry-TUB1</i>	This study
AKY1734	YPH499 <i>cdc15-1 Sli15-GFP-klTRP1 spo12Δ::His3MX6 ura3::URA3-mcherry-TUB1</i>	This study
AKY1751	YPH499 <i>cdc15-1 Sli15-GFP-klTRP1 ura3::URA3-mcherry-TUB1 swr1Δ::his3MX6</i>	This study
AKY1300	ESM356-1 <i>His3MX6-GAL1-3HA-KIN4 cdc15-as</i>	This study
AKY1313	ESM356-1 <i>His3MX6-GAL1-3HA-KIN4 cdc15-as swr1Δ::kanMX6</i>	This study
AKY3076-1	YPH499 <i>kar9Δ::klTRP1 pRS316-KAR9 kin4Δ::his3MX6 ade2::ADE2-GFP-TUB1 pre9Δ::hphNT1</i>	This study
AKY2979-1	YPH499 <i>kar9Δ::klTRP1 pRS316-KAR9 kin4Δ::his3MX6 ade2::ADE2-GFP-TUB1 sic1Δ::natNT1</i>	This study
AKY1809-1	YPH499 <i>kar9Δ::klTRP1 pRS316-KAR9 kin4Δ::his3MX6 ade2::ADE2-GFP-TUB1 sgf73Δ::natNT1</i>	This study
AKY1907	YPH499 <i>kar9Δ::klTRP1 pRS316-KAR9 kin4Δ::his3MX6 ade2::ADE2-GFP-TUB1 slt2Δ::hphNT1</i>	This study
AKY1279-1	YPH499 <i>kar9Δ::klTRP1 pRS316-KAR9 kin4Δ::his3MX6 ade2::ADE2-GFP-TUB1 spo12Δ::hphNT1</i>	Caydasi et al., 2017
AKY1321-1	YPH499 <i>kar9Δ::klTRP1 pRS316-KAR9 kin4Δ::his3MX6 ade2::ADE2-GFP-TUB1 slk19Δ::hphNT1</i>	Caydasi et al., 2017
SHY40-1	ESM356-1 <i>gas1Δ::klTRP1</i>	This study
AKY1791-1	ESM356-1 <i>leu2::LEU2-GAL1-KIN4 swr1Δ::klTRP1</i>	This study
AKY1533	ESM356-1 <i>leu2::LEU2-GAL1-KIN4</i>	This study
MFY1611-1	ESM356-1 <i>slt2Δ::klTRP1</i>	This study
BKY1012	YPH499 <i>cdc15-1 CDC14-GFP-hphNT ura3::URA3-mCherry-TUB1 sir2Δ::klTRP1</i>	This study
BKY1013	YPH499 <i>cdc15-1 CDC14-GFP-hphNT ura3::URA3-mCherry-TUB1 spo12Δ::his3MX6 sir2Δ::klTRP1</i>	This study
BKY1007	YPH499 <i>kar9Δ::klTRP1 pRS316-KAR9 swr1Δ::his3MX6 ade2::ADE2-GFP-TUB1 sir2Δ::hphNT1</i>	This study
BKY1008	YPH499 <i>kar9Δ::klTRP1 pRS316-KAR9 ade2::ADE2-GFP-TUB1 yku80Δ::hphNT1</i>	This study

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