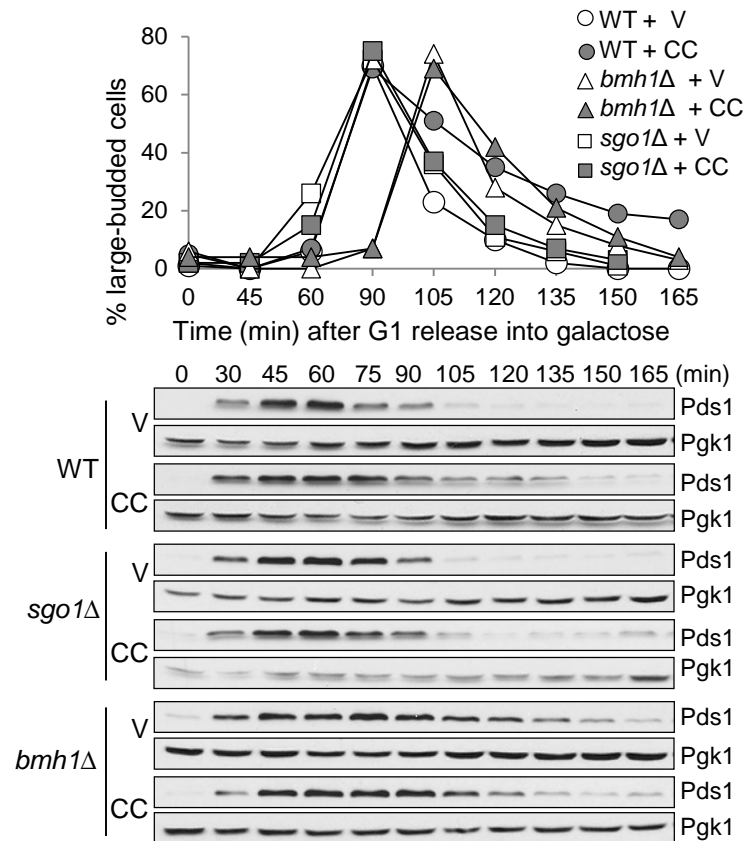
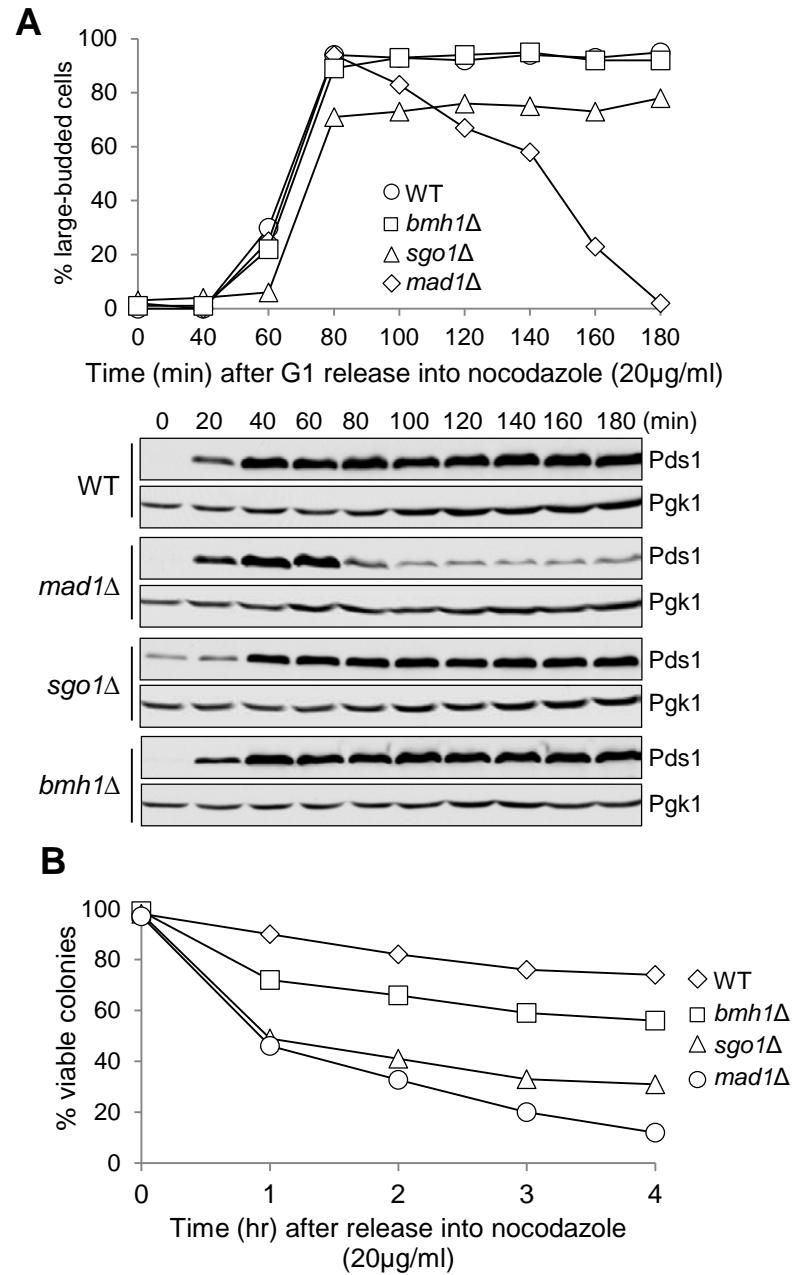


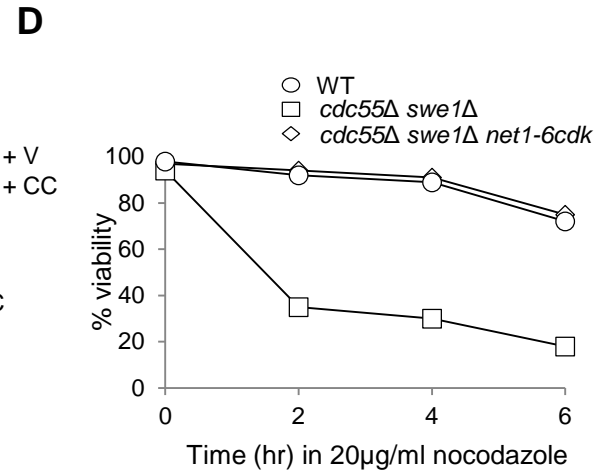
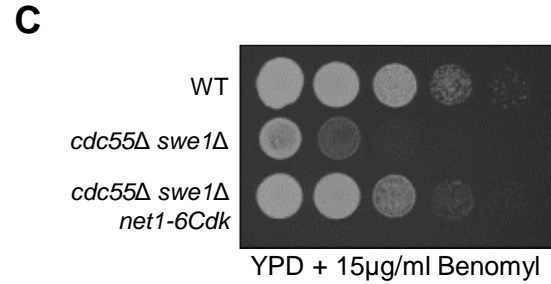
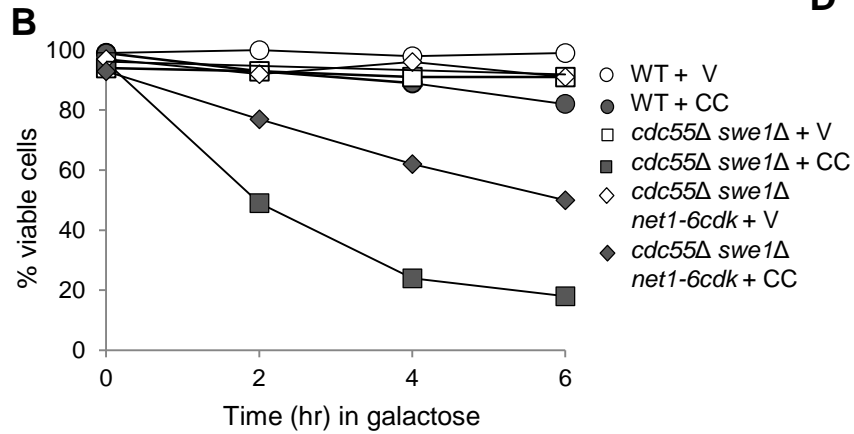
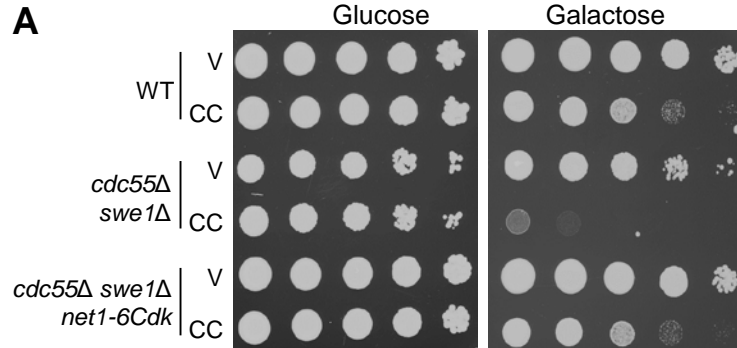
Bokros et al. Fig. S1 (Fig. 1)



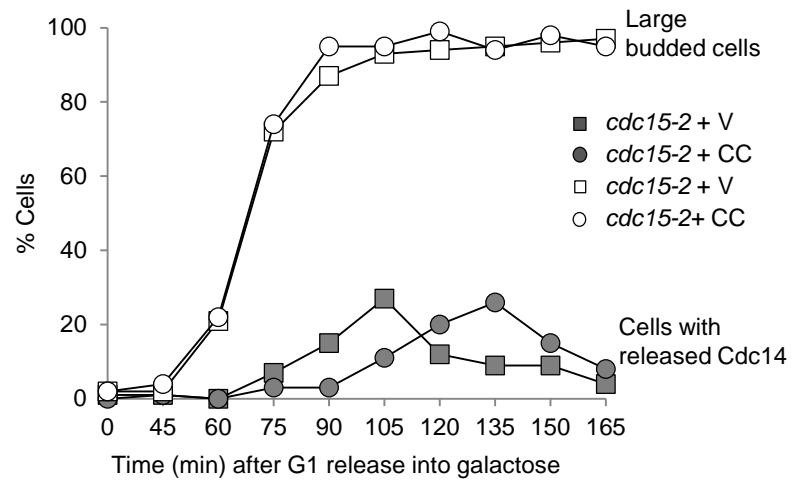
Bokros et al. Fig. S2 (Fig. 2)



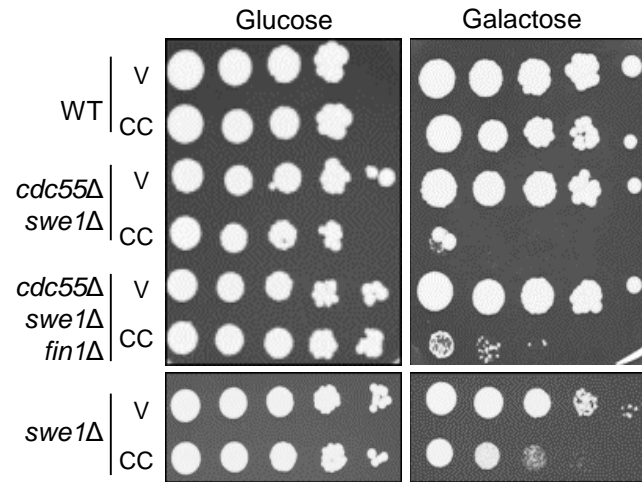
Bokros et al. Fig. S3 (Fig. 3)



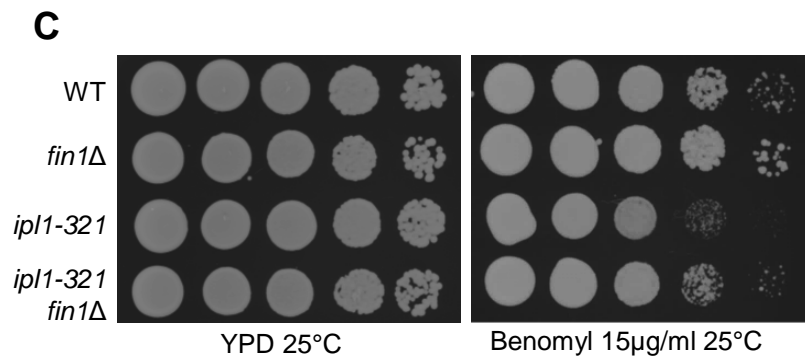
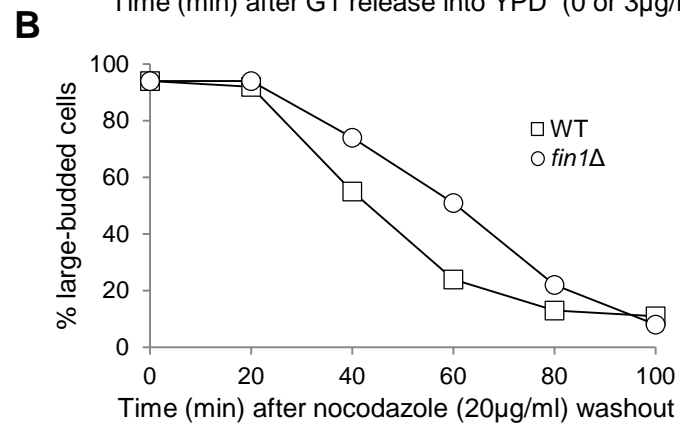
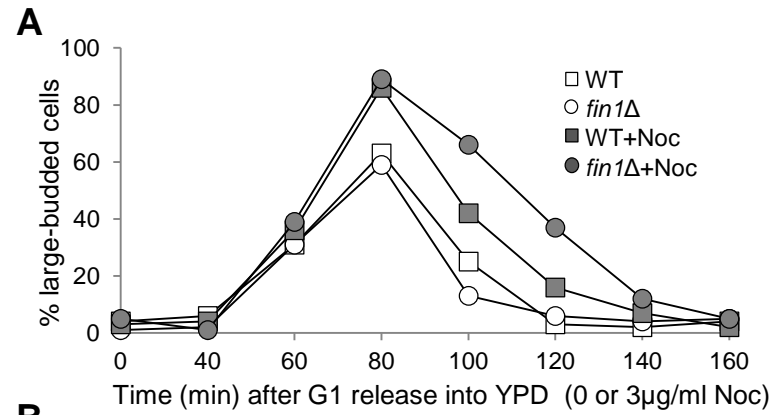
Bokros et al. Fig. S4 (Fig. 3)



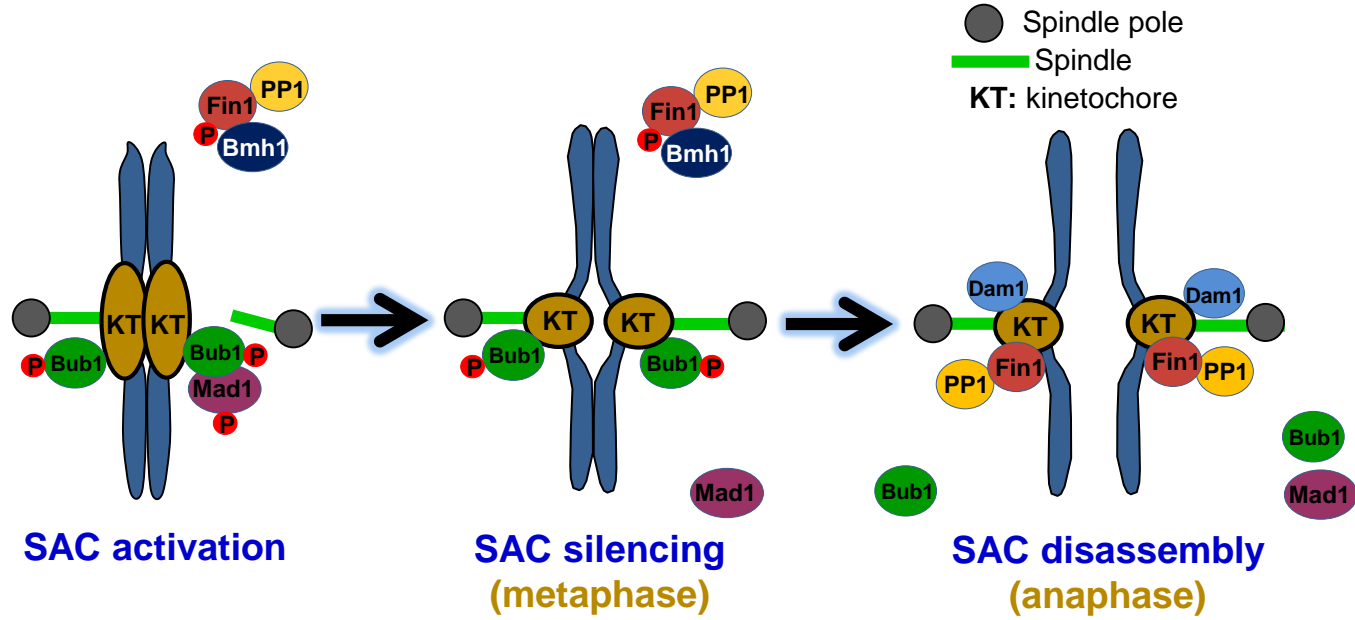
**Bokros et al. Fig. S5 (Fig. 3)**



Bokros et al. Fig. S6 (Fig. 7)



Bokros et al. Fig. S7 (Fig. 7)



## Supplemental Figure legends

**Figure S1.** A comparison of the anaphase entry process in WT, *bmh1* $\Delta$  and *sgo1* $\Delta$  cells when *CIK1-CC* is overexpressed. *PDS1-18myc* cells with the indicated genotypes were synchronized in G<sub>1</sub> phase in raffinose medium and then released into synthetic galactose medium. Cells were collected every 15 min for budding index and the preparation of protein extracts. The budding index is shown on the top. Western blotting was performed to show the protein levels of Pds1. Pgk1 levels are shown as a loading control.

**Figure S2.** The response of *bmh1* $\Delta$  mutants to nocodazole treatment. **(A)** *bmh1* $\Delta$  cells show metaphase arrest after nocodazole treatment. Cells with the indicated phenotypes and *Pds1-18myc* were synchronized in G<sub>1</sub> phase and then released into YPD containing 20 $\mu$ g/ml nocodazole. Samples were collected every 20 min for the budding index and the examination of *Pds1-18myc* protein levels. The percentage of large-budded cells over time is shown on the top and the Western blotting results for Pds1 are shown at the bottom. Pgk1 protein levels are used as a loading control. **(B)** *bmh1* $\Delta$  cells show viability loss after release into nocodazole. Log-phase cells with the indicated genotypes were released into YPD medium containing 20 $\mu$ g/ml nocodazole. Samples were collected every hour and plated onto YPD plates. The percentage of viable cells was examined after overnight incubation at 25°C (n > 300).

**Figure S3.** The sensitivity of *cdc55* $\Delta$  *swe1* $\Delta$  to *CIK1-CC* overexpression and spindle poisons is suppressed by *net1-6Cdk*. **(A)** *cdc55* $\Delta$  *swe1* $\Delta$  cells show sensitivity to *CIK1-CC* overexpression, which is rescued by *net1-6Cdk*. Saturated cells with the indicated genotypes were 10-fold serial diluted, spotted onto glucose and galactose plates, and then incubated at 30°C for 2 days before scanning. V (vector), CC (*P<sub>GAL</sub>CIK1-CC*). **(B)** *CIK1-CC* overexpression induces viability loss in *cdc55* $\Delta$  *swe1* $\Delta$ , which is suppressed by *net1-6Cdk*. Log-phase cells with the indicated genotypes were first grown in raffinose medium and then released into 2% galactose medium. Samples were taken every 2 hr and spread onto YPD plates. After incubation at 25°C overnight, the percentage of viable cells was counted (n > 300). **(C)** The sensitivity of *cdc55* mutants to benomyl. Saturated cells with the indicated genotypes were 10-fold serial diluted, spotted onto YPD plates containing 15 $\mu$ g/ml benomyl, and then incubated at 30°C for two days before scanning. **(D)** Nocodazole-induced viability loss in *cdc55* $\Delta$  *swe1* $\Delta$  is rescued by *net1-6Cdk*. Log-phase cells with the indicated



genotypes were released into YPD medium containing 20µg/ml nocodazole. Samples were taken every 2 hr and spread onto YPD plates. After incubation at 25°C overnight, the percentage of viable cells was counted (n > 300).

**Figure S4.** Overexpression of *CIK1-CC* delays FEAR activation. *cdc15-2 CDC14-GFP* cells with a control vector and a *P<sub>GAL</sub>-CIK1-CC* plasmid were arrested in G<sub>1</sub> phase and then released into galactose medium at 36°C. Cells were collected every 15 min to examine the nucleolar localization of Cdc14. Here shows the percentage of large-budded cells as well as cells with released Cdc14.

**Figure S5.** The sensitivity of *cdc55Δ swe1Δ* to *CIK1-CC* overexpression is partially suppressed by *fin1Δ*. Saturated cells with indicated genotypes were 10-fold serial diluted, spotted onto glucose and galactose plates, and then incubated at 30°C for 2 days before scanning. V (vector), CC (*P<sub>GAL</sub>CIK1-CC*).

**Figure S6.** *fin1Δ* mutant cells show delayed cell cycle after SAC challenge. **(A)** The cell cycle progression of WT and *fin1Δ* mutant cells in the absence and presence of low concentration of nocodazole. Cells were synchronized in G<sub>1</sub> phase and then released into 30°C YPD with or without 3µg/ml nocodazole. Cells were collected every 20 min to count the percentage of large budded cells. **(B)** *fin1Δ* cells show delayed recovery from nocodazole arrest. Cells in exponential phase were treated with 20µg/ml of nocodazole for 2 hrs and then released into 30°C YPD medium. Cells were collected over time to determine the budding index. **(C)** *fin1Δ* suppresses the benomyl sensitivity of *ipl1-321* mutant. Saturated cells with the indicated genotypes were 10-fold diluted and spotted onto plates with and without 15µg/ml of benomyl. The plates were scanned after incubation at 25°C for 2 or 3 days.

**Figure S7.** The working model for the function of Fin1 pathway in SAC regulation.

**Table S1.** Strains used in this study.

Strains	Relevant Genotypes	Reference
JBY649	<i>MATa PDS1-18myc-LEU2</i>	Lab stock
2024-9-3	<i>MATa sgo1Δ::KanMX PDS1-18myc-LEU2</i>	Lab stock
2814-6-1	<i>MATa bmh1Δ::Sphis5<sup>+</sup> PDS1-18myc-LEU2</i>	This study
CG001	<i>MATa bmh2Δ::Sphis5<sup>+</sup> PDS1-18myc-LEU2</i>	This study
771-4-1	<i>MATa mad1Δ::HIS3 PDS1-18myc-LEU2</i>	Lab stock
2897-4-2	<i>MATa fin1Δ::Sphis5<sup>+</sup> PDS1-18myc-LEU2</i>	This study
2898-1-4	<i>MATa bmh1Δ::KanMX fin1Δ::Sphis5<sup>+</sup> PDS1-18myc-LEU2</i>	This study
2818-1-4	<i>MATa promURA3::tetR::GFP-LEU2 CENIV::tetOX448::URA3 TUB1-mCherry-URA3</i>	Lab stock
2372-1-4	<i>MATa sgo1Δ::KanMX promURA3::tetR::GFP-LEU2 CENIV::tetOX448::URA3 TUB1-mCherry-URA3</i>	Lab stock
2854-4-3	<i>MATa bmh1Δ::Sphis5<sup>+</sup> promURA3::tetR::GFP-LEU2 CENIV::tetOX448::URA3 TUB1-mCherry-URA3</i>	This study
2849-4-1	<i>MATa MAD1-3HA-URA3</i>	Lab stock
2823-7-1	<i>MATa bmh1Δ::Sphis5<sup>+</sup> MAD1-3HA-URA3</i>	This study
2781-9-1	<i>MATa mcd1-1-trp1::Sphis5<sup>+</sup> MAD1-3HA-URA3</i>	Lab stock
2954-2-2	<i>MATa mcd1-1-trp1::Sphis5<sup>+</sup> bmh1Δ::Sphis5<sup>+</sup> MAD1-3HA-URA3</i>	This study
2859-3-3	<i>MATa BUB1-13myc- Sphis5<sup>+</sup></i>	Lab stock
2994-2-3	<i>MATa bmh1:: KanMX BUB1-13myc- Sphis5<sup>+</sup></i>	This study
2862-9-4	<i>MATa mcd1-1-trp1::Sphis5<sup>+</sup> BUB1-13myc- Sphis5<sup>+</sup></i>	Lab stock
2882-2-2	<i>MATa mcd1-1-trp1::Sphis5<sup>+</sup> bmh1:: KanMX BUB1-13myc- Sphis5<sup>+</sup></i>	This study
CG002	<i>MATa mcd1-1-trp1::Sphis5<sup>+</sup></i>	This study
3003-2-2	<i>MATa mcd1-1-trp1::Sphis5<sup>+</sup> bmh1Δ::KanMX fin1Δ::TRP1 BUB1-13myc- Sphis5<sup>+</sup></i>	This study
844-2-2	<i>MATa swe1Δ::LEU2 cdc55Δ::Sphis5<sup>+</sup></i>	Lab Stock
3086-1-1	<i>MATa swe1Δ::LEU2 cdc55Δ::Sphis5<sup>+</sup> net1Δ::HIS3 net1-6Cdk1-TRP1</i>	This study
3076-2-2	<i>MATa swe1Δ::LEU2 cdc55Δ::Sphis5<sup>+</sup> promURA::tetR::GFP-LEU2 CENIV::tetOX448::URA3 TUB1-mCherry-URA3</i>	This study
3081-3-3	<i>MATa mcd1-1-trp1::Sphis5<sup>+</sup> swe1Δ::LEU2 cdc55Δ::Sphis5<sup>+</sup> BUB1-13myc-Sphis5<sup>+</sup></i>	This study
411-1-1	<i>MATa swe1Δ::LEU2</i>	Lab stock
3080-1-2	<i>MATa swe1Δ::LEU2 cdc55Δ::Sphis5<sup>+</sup> fin1Δ::KanMX</i>	This study
3195-4-3	<i>MATa fin1Δ::TRP1 NUF2-mCherry MATa bmh1:: KanMX fin1Δ::TRP1 NUF2-mCherry</i>	This study
3195-1-3	<i>MATa bmh1:: KanMX fin1Δ::TRP1 NUF2-mCherry</i>	This study
3200-1-3	<i>MATa swe1Δ::TRP1 cdc55Δ::Sphis5<sup>+</sup> fin1Δ::TRP1 NUF2-mCherry</i>	This study
3140-4-3	<i>MATa cdc13-1 fin1Δ::TRP1</i>	This study
3140-1-1	<i>MATa cdc13-1 bmh1Δ::KanMX fin1Δ::TRP1</i>	This study
3156-1-2	<i>MATa cdc13-1 cdc55Δ::Sphis5<sup>+</sup> fin1Δ::TRP1</i>	This study
3012-8-2	<i>MATa fin1Δ::KanMX</i>	This study
3203-1-3	<i>MATa fin1Δ::KanMX BUB1-13myc- Sphis5<sup>+</sup> CFIII(URA3,sup11)</i>	This study
3145-7-1	<i>MATa NUF2-mCherry</i>	This study
2857-8-1	<i>MATa BUB1-GFP- Sphis5<sup>+</sup> NUF2-mCherry</i>	Lab stock
3196-1-3	<i>MATa fin1Δ::KanMX BUB1-GFP- Sphis5<sup>+</sup> NUF2-mCherry</i>	This study
3196-10-4	<i>MATa cdc15-2 BUB1-GFP- Sphis5<sup>+</sup> NUF2-mCherry</i>	This study
3196-3-1	<i>MATa cdc15-2 fin1Δ::KanMX BUB1-GFP- Sphis5<sup>+</sup> NUF2-mCherry</i>	This study
797-19-4	<i>MATa ipl1-321</i>	Lab stock
3180-1-2	<i>MATa ipl1-321 fin1Δ::KanMX</i>	This study
875-2-1	<i>MATa cdc15-2 CDC14-GFP-TRP1</i>	Lab stock
3218-1-4	<i>MATa ase1Δ::Sphis5<sup>+</sup> BUB1-GFP- Sphis5<sup>+</sup> NUF2-mCherry</i>	This study