

**Table S1. Yeast plasmids used in this study**

Plasmid	Vector; Insert	Source or reference
pATG9-3×GFP(306)	pRS306; <i>ATG9-3×GFP</i>	(1)
pCU-GFP-AUT7(416)	pCU-GFP(416); <i>ATG8</i>	(2)
pRFP-APE1(305)	pRS305; <i>RFP-APE1</i>	(3)
pCU-GFP-Atg32(416)	pRS416; <i>Atg32</i>	(4)
pTL334	pPHO5 <sup>prom</sup> (406); <i>GFP-myc-PH<sup>FAPP1</sup></i>	(5)
pZY054	pCU(416); <i>3HA</i>	This study
pZY084	pCU-3HA(416); <i>PIK1</i>	This study
pZY085	pCU-3HA(405); <i>PIK1</i>	This study
pZY086	pCU-RFP(405); <i>ATG8</i>	This study
pZY087	pCU-GFP(416); <i>PIK1</i>	This study
pZY088	pCU-GFP(416); <i>PIK1-11</i>	This study
pZY089	pCU-GFP(416); <i>PIK1-83</i>	This study
pZY090	pCU-GFP(416); <i>PIK1-104</i>	This study
pZY094	pFA6a-KAN1; <i>PIK1-11</i>	This study
pZY095	pFA6a-KAN1; <i>PIK1-83</i>	This study
pZY096	pFA6a-KAN1; <i>PIK1-104</i>	This study
pZY097	pFA6a-TRP1; <i>PIK1-11</i>	This study
pZY098	pFA6a-TRP1; <i>PIK1-83</i>	This study
pZY099	pFA6a-TRP1; <i>PIK1-104</i>	This study

**Table S2. Yeast strains used in this study**

Strain	Genotype	Source or reference
BY4742	<i>MATa leu2-Δ0 his3-Δ1 lys2-Δ0 ura3-Δ0</i>	ResGen/Invitrogen
<i>frq1-1</i>	BY4742 <i>frq1-1</i>	This study
JGY169	SEY6210 <i>GFP-ATG8::LEU2 vam3<sup>ts</sup>::TRP1</i>	(6)
JK9-3da	<i>MATa leu2-3,112 ura3-52 rme1, trp1 his4</i> <i>GAL HMLa</i>	(7)
KWY20	SEY6210 <i>pho8Δ::TRP1 pho13Δ::LEU2</i> pRS406- <i>ADH1-COX4-pho8Δ60</i>	(8)
KWY22	SEY6210 <i>pho8Δ::TRP1 pho13Δ::LEU2</i> pRS406- <i>ADH1-COX4-pho8Δ60 atg32Δ::KAN</i>	(8)
KWY79	KWY20, <i>pik1-104::KAN</i>	This study
<i>SEC7-6DsRed</i>	JK9-3da <i>SEC7-6xDsRed::TRP1</i>	Benjamin Glick
TKYM107	BY4742, <i>OM45-GFP::HIS3</i>	(8)
TKYM137	BY4742, <i>OM45-GFP::HIS3 atg32Δ::KAN</i>	(8)
KWY80	<i>stt4-4 OM45-GFP::HIS3</i>	This study
KWY81	<i>pik1-104 OM45-GFP::HIS3</i>	This study
KWY82	<i>mss4-103 OM45-GFP::HIS3</i>	This study
KWY83	<i>mss4-103 pho8Δ60::URA3 pho13Δ::LEU2</i>	This study
KWY84	BY4742 <i>pho8Δ::HIS3 pho13Δ::LEU2</i> pRS406- <i>ADH1-COX4-pho8Δ60</i>	This study
KWY85	<i>stt4-4 pho8Δ::HIS3 pho13Δ::LEU2</i> pRS406- <i>ADH1-COX4-pho8Δ60</i>	This study

KWY86	<i>mss4-103 pho8Δ::HIS3 pho13Δ::LEU2</i>	
	<i>pRS406-ADHI-COX4-pho8Δ60</i>	This study
KWY87	KWY83 <i>atg32Δ::KAN</i>	This study
<i>pik1-104</i>	BY4741 <i>pik1-104</i>	This study
<i>sec14-3</i>	BY4741 <i>sec14-3</i>	This study
SEY6210	<i>MATα ura3-52 leu2-3,112 his3-Δ200</i>	
	<i>trp1-Δ901 lys2-801 suc2-Δ9 mel GAL</i>	(9)
<i>stt4-4</i>	BY4741 <i>stt4-4</i>	This study
TYY127	YTS158 <i>atg1Δ::URA3</i>	(10)
YES47	YPH499 <i>pik1-11::TRP1</i>	(11)
YES102	YPH499 <i>pik1-83::TRP1</i>	(11)
YPH499	<i>MATα ade2-101<sup>oc</sup> his3-Δ200 leu2-Δ1</i>	
	<i>lys2-801<sup>am</sup> trp1-Δ1 ura3-52</i>	(12)
YTS158	BY4742 <i>pho8Δ60::HIS3 pho13Δ::LEU2</i>	(10)
ZFY070	SEY6210 <i>atg1Δ::URA3 ATG27-GFP::HIS3</i>	
	<i>RFP-APE1::LEU2</i>	This study
ZFY073	SEY6210 <i>GFP-ATG8::LEU2</i>	This study
ZFY202	W303-1B <i>pho13Δ pho8Δ60::HIS3</i>	(13)
ZFY270	BY4742 <i>atg1Δ::KAN ATG9-3×GFP::URA3</i>	
	<i>RFP-APE1::LEU2</i>	This study
ZFY273	<i>pik1-104 atg1Δ::KAN ATG9-3×GFP::URA3</i>	
	<i>RFP-APE1::LEU2</i>	This study

ZFY276	<i>frq1-1 atg1Δ::KAN ATG9-3×GFP::URA3</i>	
	<i>RFP-APE1::LEU2</i>	This study
ZFY280	<i>frq1-1 pho8Δ60::URA3 pho13Δ::LEU2</i>	This study
ZFY281	<i>pik1-104 pho8Δ60::URA3 pho13Δ::LEU2</i>	This study
ZFY282	<i>stt4-4 pho8Δ60::URA3 pho13Δ::LEU2</i>	This study
ZFY283	YPH499 <i>pho8Δ60::HIS3 pho13Δ::LEU2</i>	This study
ZFY284	<i>pik1-11 pho8Δ60::HIS3 pho13Δ::LEU2</i>	This study
ZFY285	<i>frq1-1 Cu3HA-PIK1::LEU2</i>	This study
ZFY286	<i>pik1-11 Cu3HA-PIK1::LEU2</i>	This study
ZFY287	<i>pik1-83 Cu3HA-PIK1::LEU2</i>	This study
ZFY288	<i>pik1-104 Cu3HA-PIK1::LEU2</i>	This study
ZFY290	<i>sec14-3 Cu3HA-PIK1::LEU2</i>	This study
ZFY293	ZFY202 <i>pik1-83::TRP1</i>	This study
ZFY299	SEY6210 <i>atg1Δ::URA3 ATG27-GFP::HIS3</i>	
	<i>RFP-APE1::LEU2 pik1-11::TRP1</i>	This study
ZFY301	SEY6210 <i>atg1Δ::URA3 ATG27-GFP::HIS3</i>	
	<i>RFP-APE1::LEU2 pik1-104::TRP1</i>	This study
ZFY305	SEY6210 <i>GFP-ATG8::LEU2 pik1-104::TRP1</i>	This study
ZFY306	JGY169 <i>pik1-104::KAN</i>	This study
ZFY326	<i>SEC7-6×DsRed::TRP1 ATG9-3×GFP::URA3</i>	This study
ZFY328	<i>SEC7-6×DsRed::TRP1 ATG9-3×GFP::URA3</i>	
	<i>pik1-104::KAN</i>	This study

## Supplemental references

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