Supporting Information

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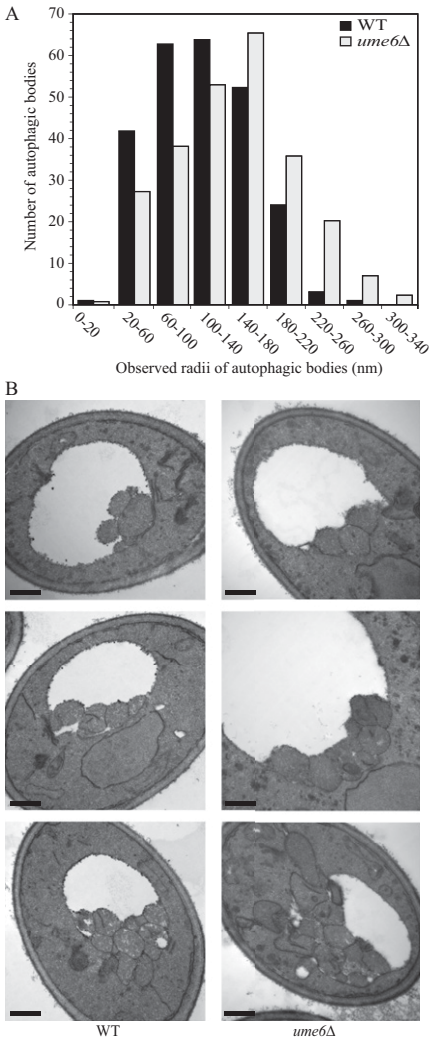

Fig. S1. Autophagosome volume is increased in *ume6*Δ cells. (*A*) Wild-type (FRY143, SEY6210) and *ume6*Δ (YCB234) strains with *vps4*Δ and *pep4*Δ deletions to eliminate vesicles generated from the multivesicular body pathway and the breakdown of autophagic bodies, respectively, were grown in rich medium and starved in SD-N for 1 h. Samples were collected, prepared, and examined by TEM as described in *Materials and Methods*. The radius of each autophagosome was determined as described in *Materials and Methods*. The error represents the SEM for >225 autophagic bodies. (*B*) Supplemental images for Fig. 4*C*. Wild-type (FRY143, SEY6210) and *ume6*Δ (YCB234) strains were grown as above and starved in SD-N for 2 h. Samples were collected, prepared, and examined by TEM as described in *Materials and Methods*. (Scale bars: 500 nm.)

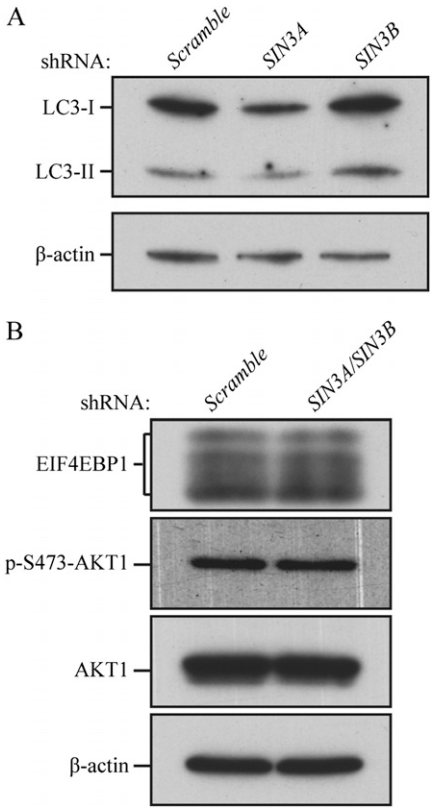

Fig. S2. SIN3A and SIN3B play redundant roles in regulating LC3 expression. (*A*) *SIN3A*- and *SIN3B*-targeted shRNA was prepared and used to generate viruses as described in *Materials and Methods*. The shRNA-expressing viruses were singly infected into HeLa cells using scrambled DNA as a control. Cell lysates were analyzed by immunoblotting with anti-LC3 and anti-actin antiserum (the latter as a loading control). (*B*) *SIN3A* and *SIN3B* were knocked down in combination, and cell lysates were analyzed with the indicated antibodies.

Table S1. Strains used in this study

Strain	Genotype	Source
BY4742	MATα *his3*Δ*1 leu2*Δ*0 ura3*Δ*0*	Invitrogen
FRY143	SEY6210 *pep4*Δ*::LEU2 vps4*Δ*::TRP1*	1
rim15Δ	BY4742 *rim15*Δ*::KanMX6*	Invitrogen
rpd3Δ	BY4742 *rpd3*Δ*::KanMX6*	Invitrogen
SEY6210	MATα *his3*Δ*200 leu2-3,112 lys2-801 suc2-*Δ*9 trp1*Δ*901 ura3-52*	2
sin3Δ	BY4742 *sin3*Δ*::KanMX6*	Invitrogen
ume6Δ	BY4742 *ume6*Δ*::KanMX6*	Invitrogen
W303-1B	MATα *ade2-1 his3-11,15 leu2,3,112 trp1-1 ura3-1 can1-100*	3
YCB193	SEY6210 *pho8::pho8*Δ*60 pho13*Δ	This Study
YCB194	SEY6210 *atg1*Δ*::HIS3 pho8::pho8*Δ*60 pho13*Δ	This Study
YCB197	SEY6210 *ume6*Δ*::HIS3 pho8::pho8*Δ*60 pho13*Δ	This Study
YCB234	SEY6210 *pep4*Δ*::LEU2 vps4*Δ*::TRP1 ume6*Δ*::KanMX6*	This Study
YZD005	W303-1B *pep4*Δ*::URA3 pho13*Δ *pho8*Δ*60*	This Study
YZD006	W303-1B *pep4*Δ*::URA3 pho13*Δ *pho8*Δ*60 rim15*Δ*::BLE*	This Study
YZD007	W303-1B *pep4*Δ*::URA3 pho13*Δ *pho8*Δ*60 rim15*Δ*::BLE ume6*Δ*::HIS3*	This Study

1. Cheong H, et al. (2005) Atg17 regulates the magnitude of the autophagic response. *Mol Biol Cell* 16:3438–3453.
2. Robinson JS, Klionsky DJ, Banta LM, Emr SD (1988) Protein sorting in *Saccharomyces cerevisiae*: Isolation of mutants defective in the delivery and processing of multiple vacuolar hydrolases. *Mol Cell Biol* 8:4936–4948.
3. Thomas BJ, Rothstein R (1989) Elevated recombination rates in transcriptionally active DNA. *Cell* 56:619–630.