

Figure S1

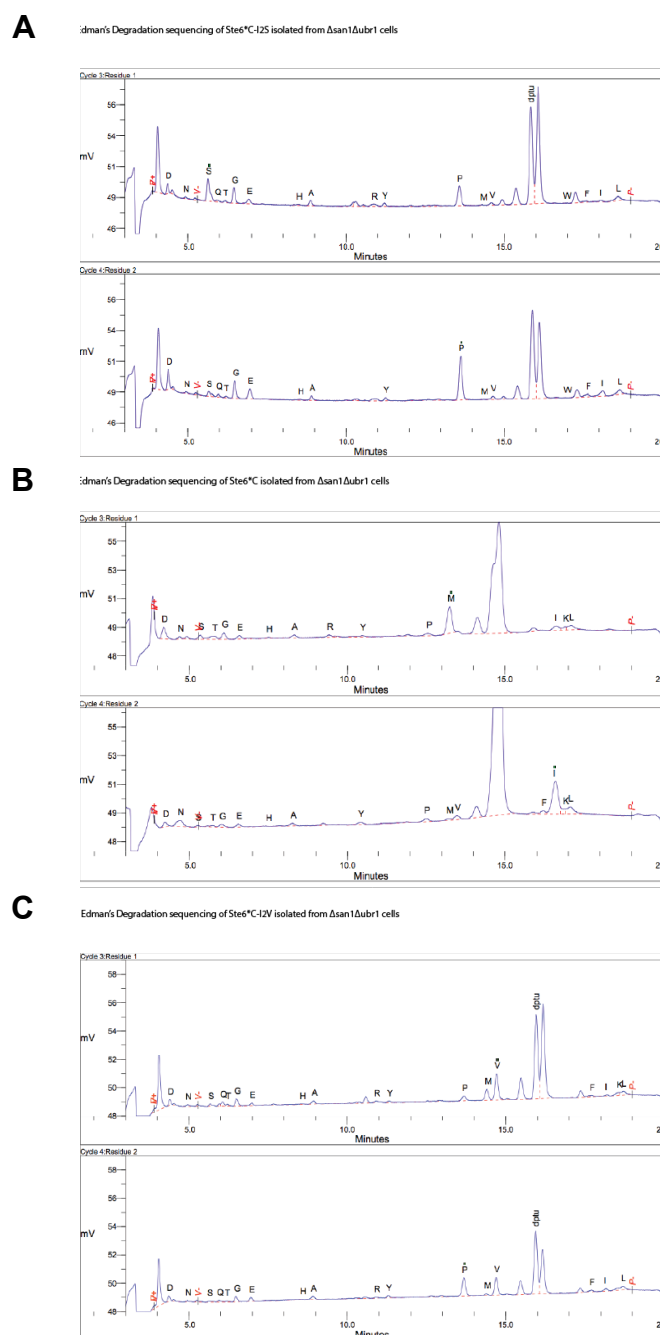


Fig. S1. N-terminal sequencing of Ste6^{*}C constructs. (A) Lysate was prepared from Δ san1 Δ ubr1 cells expressing Ste6^{*}C-HA-I2S. Protein was immunoprecipitated from lysate with anti-HA affinity matrix (Roche), resolved by SDS-PAGE, and transferred to PVDF membrane. Protein band carrying Ste6^{*}C-HA was excised from the membrane and sequenced via Edman degradation. (B) Lysate was prepared from Δ san1 Δ ubr1 cells expressing Ste6^{*}C-HA. Protein was immunoprecipitated from lysate and sequenced as described in Fig S1A. (C) Lysate was prepared from Δ san1 Δ ubr1 cells expressing Ste6^{*}C-HA-I2V. Protein was immunoprecipitated from lysate and sequenced as described in Fig S1A.

Figure S2

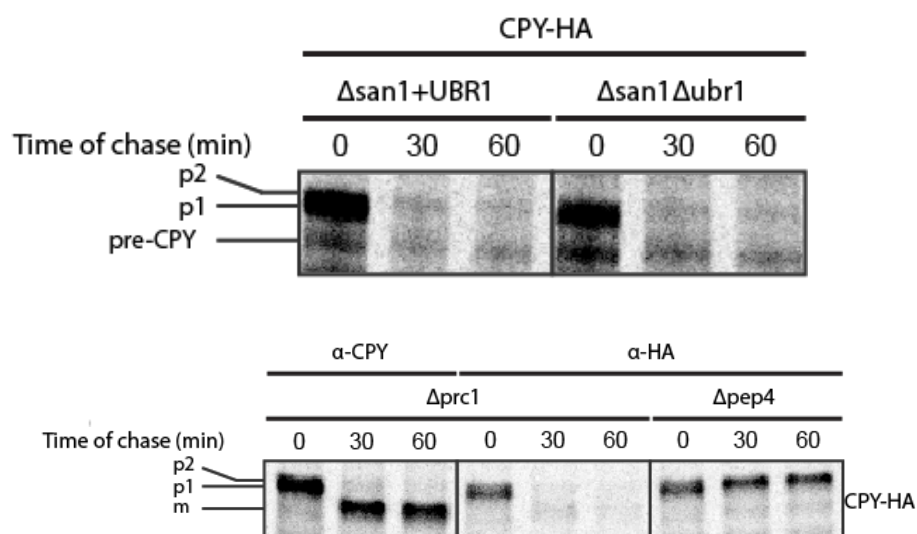


Fig S2. C-terminal HA-tag is removed from HA-tagged CPY in the vacuole. Turnover rate of CPY-HA was assessed in $\Delta prc1$, $\Delta pep4$, $\Delta san1+UBR1$, and $\Delta san1\Delta ubr1$ cells by metabolic pulse-chase as described in Fig 1. CPY was probed with anti-CPY and anti-HA antibodies in $\Delta prc1$ cells, and anti-HA in $\Delta pep4$ cells.

Figure S3

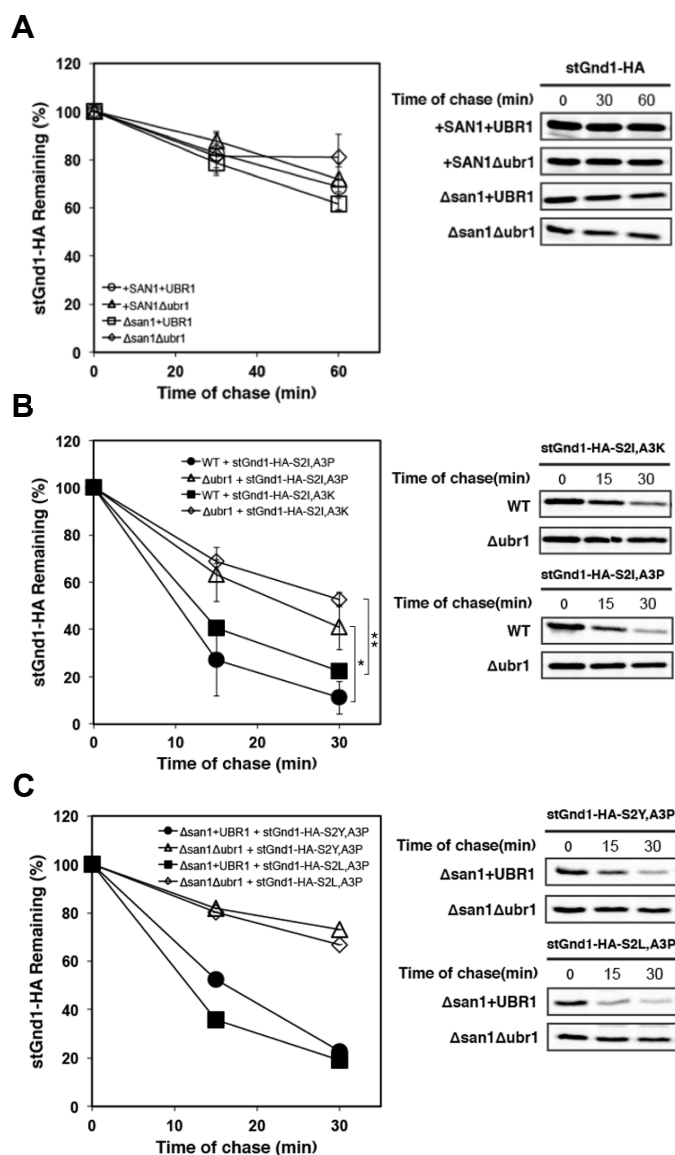


Fig S3. Ubr1-mediated degradation of stGnd1 is P2-residue/N-degron dependent. (A) Turnover rate of C-terminally HA-tagged stGnd1 (stGnd1-HA) expressed in +SAN1+UBR1 (wild-type), Δ san1+UBR1, +SAN1 Δ ubr1, and Δ san1 Δ ubr1 cells was assessed by metabolic pulse-chase. Error bars, mean \pm SD of two independent experiments (N=2, biological replicates). (B) Turnover rates of C-terminally HA-tagged stGnd1-HA-S2IA3K and stGnd1-HA-S2IA3P expressed in wild-type and Δ ubr1 cells were assessed by metabolic pulse-chase. Error bars, mean \pm SD of two or three independent experiments (N=2 for stGnd1-HA-S2IA3K; N=3 for stGnd1-HA-S2IA3P). (C) Turnover rates of C-terminally HA-tagged stGnd1-HA-S2YA3P and stGnd1-HA-S2LA3P expressed in Δ san1+UBR1 and Δ san1 Δ ubr1 cells were assessed by metabolic pulse-chase (N=1, biological replicates). (A-C) Metabolic pulse-chase was performed as described in Fig 1.

Tables S1–S32 have been uploaded to the Dryad Digital Repository at <https://doi.org/10.5061/dryad.r837vv7> (Tran, 2019).