

Supplementary Table I. Yeast strains used.

Name	Genotype
MHY495 ^a	α <i>his3</i> -Δ200 <i>leu2</i> -3,112 <i>ura3</i> -52 <i>lys2</i> -801 <i>trp1</i> -1 <i>ubc6Δ::HIS3</i>
MHY498 ^a	α <i>his3</i> -Δ200 <i>leu2</i> -3,112 <i>ura3</i> -52 <i>lys2</i> -801 <i>trp1</i> -1 <i>ubc4Δ::HIS3</i>
MHY500 ^a	a <i>his3</i> -Δ200 <i>leu2</i> -3,112 <i>ura3</i> -52 <i>lys2</i> -801 <i>trp1</i> -1
MHY501 ^a	α <i>his3</i> -Δ200 <i>leu2</i> -3,112 <i>ura3</i> -52 <i>lys2</i> -801 <i>trp1</i> -1
MHY1364 (YTX105) ^b	α <i>his3</i> -Δ200 <i>leu2</i> -3,112 <i>ura3</i> -52 <i>lys2</i> -801 <i>trp1</i> -1 <i>cue1Δ::HIS3</i>
MHY1631 ^c	α <i>his3</i> -Δ200 <i>leu2</i> -3,112 <i>ura3</i> -52 <i>lys2</i> -801 <i>trp1</i> -1 <i>doa10Δ::HIS3</i>
MHY1669 (RHY1952) ^d	α <i>his3</i> -Δ200 <i>leu2</i> -3,112 <i>ura3</i> -52 <i>lys2</i> -801 <i>trp1</i> -1 <i>hrd1Δ::LEU2</i>
MHY1687	α <i>his3</i> -Δ200 <i>leu2</i> -3,112 <i>ura3</i> -52 <i>lys2</i> -801 <i>trp1</i> -1 <i>cue1Δ::HIS3</i> <i>ubc4Δ::HIS3</i>
MHY1703 ^e	α <i>his3</i> -Δ200 <i>leu2</i> -3,112 <i>ura3</i> -52 <i>lys2</i> -801 <i>trp1</i> -1 <i>doa10Δ::HIS3</i> <i>hrd1Δ::LEU2</i>
MHY1824 (SMY12-3d) ^e	a <i>his3</i> -Δ200 <i>leu2</i> -Δ1 <i>ura3</i> -52 <i>ade2</i> -Δ426 <i>lys2</i> -801 <i>mps2</i> -1
MHY1825 (SMY12-6a) ^e	a <i>his3</i> -Δ200 <i>leu2</i> -Δ1 <i>ura3</i> -52 <i>ade2</i> -Δ426 <i>lys2</i> -801
MHY2482 (Y0650) ^f	α <i>his3</i> -Δ200 <i>leu2</i> -3,112 <i>ura3</i> -52 <i>lys2</i> -801 <i>trp1</i> -1 <i>cdc48</i> -6
MHY2483 (Y0801) ^f	α <i>his3</i> -Δ200 <i>leu2</i> -3,112 <i>ura3</i> -52 <i>lys2</i> -801 <i>trp1</i> -1 <i>npl4</i> -1
MHY3011	α <i>his3Δ1</i> <i>leu2Δ0::pRS305-Deg1-URA3-3HA</i> <i>ura3Δ0</i> <i>met15Δ0</i> <i>lyp1Δ</i> <i>can1Δ::MFA1pr-HIS3</i>
MHY3185	a <i>his3</i> -Δ200 <i>leu2</i> -Δ1 <i>ura3</i> -52 <i>ade2</i> -Δ426 <i>lys2</i> -801 <i>mps2</i> -1 <i>doa10Δ::HIS3</i>
MHY3187 (CUY29) ^g	a <i>his3</i> -Δ200 <i>leu2</i> -3,112 <i>ura3</i> -52 <i>lys2</i> -801
MHY3188 (CUY412) ^g	α <i>ade2</i> -101 <i>leu2</i> -3,112 <i>ura3</i> -52 <i>ndc10</i> -2
MHY3189 (CUY1053) ^g	a <i>his3</i> -Δ200 <i>leu2</i> -3,112 <i>ura3</i> -52 <i>ndc10</i> -2 <i>kis3</i> -66
MHY3190 (CUY1054) ^g	a <i>his3</i> -Δ200 <i>leu2</i> -3,112 <i>ura3</i> -52 <i>ade2</i> -101 <i>ndc10</i> -2 <i>kis4</i> -14
MHY3272	α <i>his3</i> <i>leu2</i> <i>ura3</i> <i>lys2</i> -801 <i>ndc10</i> -2 <i>cue1Δ::kanMX</i>
MHY3273	α <i>his3</i> -Δ200 <i>leu2</i> -3,112 <i>ura3</i> -52 <i>ndc10</i> -2 <i>doa10Δ::HIS3</i>
MHY3512 (SM4783) ^h	a <i>his3</i> <i>leu2</i> -3,112 <i>ura3</i> -52 <i>trp1</i> <i>ade2</i> -1 <i>cdc48</i> -3
MHY3528	α <i>his3</i> -Δ200 <i>leu2</i> -3,112 <i>ura3</i> -52 <i>lys2</i> -801 <i>trp1</i> -1 <i>ade1</i> -100 <i>ufd1</i> -1
MHY3566 ^f	a <i>his3</i> -Δ200 <i>leu2</i> -3,112 <i>ura3</i> -52 <i>lys2</i> -801 <i>trp1</i> -1 <i>ufd1</i> -2

^aChen et al., 1993; ^bBiederer et al., 1997; ^cSwanson et al., 2001; ^dBays et al., 2001; ^eMcBratney and Winey, 2002; ^fBraun et al., 2002; ^gKopski and Huffaker, 1997; ^hHuyer et al., 2004

References for strains

- Bays, N.W., Gardner, R.G., Seelig, L.P., Joazeiro, C.A. and Hampton, R.Y. (2001) Hrd1p/Der3p is a membrane-anchored ubiquitin ligase required for ER- associated degradation. *Nat Cell Biol*, **3**, 24-29.
- Biederer, T., Volkwein, C. and Sommer, T. (1997) Role of Cue1p in ubiquitination and degradation at the ER surface. *Science*, **278**, 1806-1809.
- Braun, S., Matuschewski, K., Rape, M., Thoms, S. and Jentsch, S. (2002) Role of the ubiquitin-selective CDC48(UFD1/NPL4)chaperone (segregase) in ERAD of OLE1 and other substrates. *EMBO J*, **21**, 615-621.
- Chen, P., Johnson, P., Sommer, T., Jentsch, S. and Hochstrasser, M. (1993) Multiple ubiquitin-conjugating enzymes participate in the in vivo degradation of the yeast MAT α 2 repressor. *Cell*, **74**, 357-369.
- Huyer, G., Piluek, W.F., Fansler, Z., Kreft, S.G., Hochstrasser, M., Brodsky, J.L. and Michaelis, S. (2004) Distinct machinery is required in *Saccharomyces cerevisiae* for the endoplasmic reticulum-associated degradation of a multispanning membrane protein and a soluble luminal protein. *J Biol Chem*, **279**, 38369-38378.
- Kopski, K.M. and Huffaker, T.C. (1997) Suppressors of the ndc10-2 mutation: a role for the ubiquitin system in *Saccharomyces cerevisiae* kinetochore function. *Genet*, **147**, 409-420.
- McBratney, S. and Winey, M. (2002) Mutant membrane protein of the budding yeast spindle pole body is targeted to the endoplasmic reticulum degradation pathway. *Genet*, **162**, 567-578.
- Swanson, R., Locher, M. and Hochstrasser, M. (2001) A conserved ubiquitin ligase of the nuclear envelope/endoplasmic reticulum that functions in both ER-associated and Matalpha2 repressor degradation. *Genes Dev*, **15**, 2660-2674.