

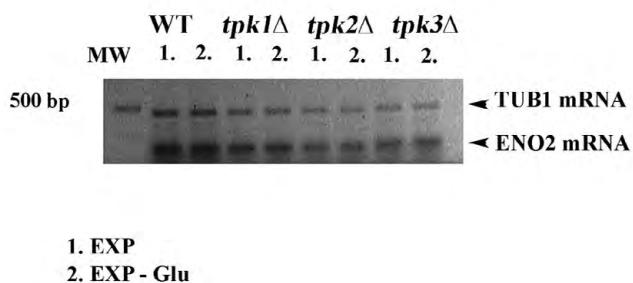
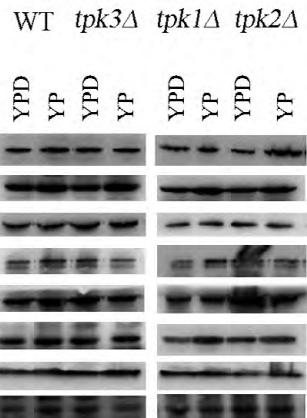
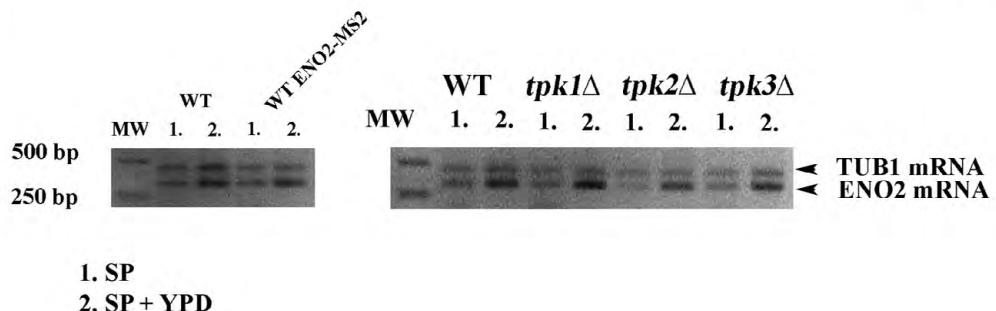
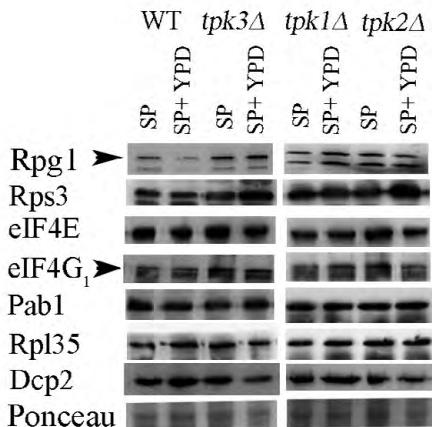
A1. EXP
2. EXP - Glu**B****western blot****C**1. SP
2. SP + YPD**D****western blot**

Fig. S1. *ENO2* and translation factor levels in *tpk1Δ*, *tpk2Δ* and *tpk3Δ* versus WT. *ENO2-MS2* RT-PCR (**A,C**) and western blot from protein extracts (**B,D**) obtained from starved (Exp-Glu) or unstarved (Exp) cells (**A,B**) and cells grown to stationary phase (SP) and re-fed with YPD for 10 minutes (SP+YPD; **C,D**). Ponceau staining shows the amount of total proteins loaded in each lane. A representative image of three independent experiments is shown. Arrowheads indicate difference in expression levels pattern between strains.

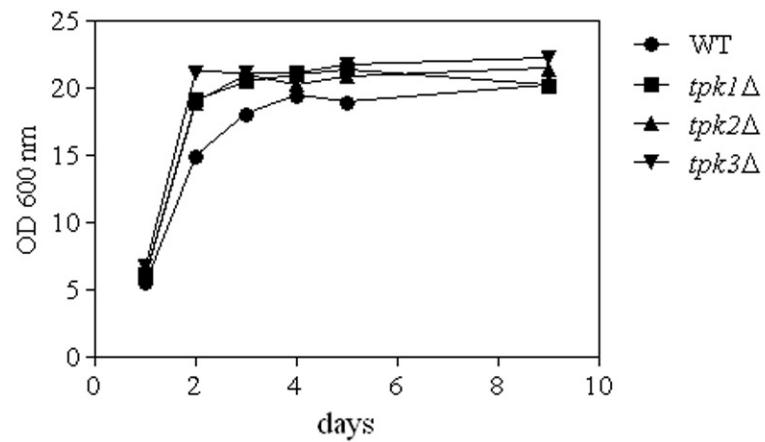
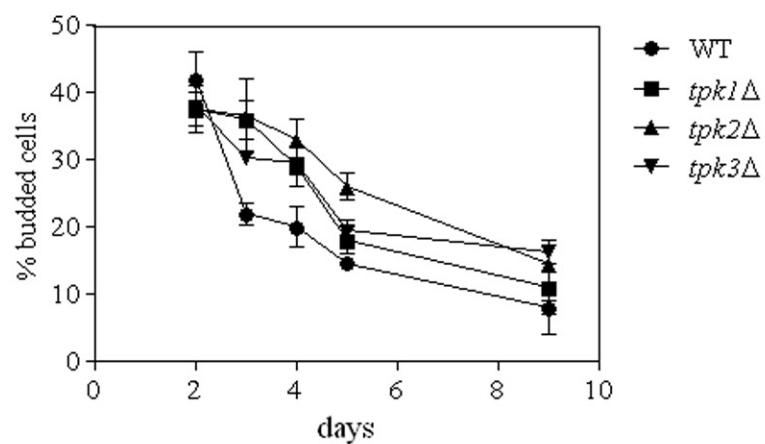
A**B**

Fig. S2. Growth curve (**A**) and % of budding cells (**B**) of *tpk1* Δ , *tpk2* Δ , *tpk3* Δ and WT strain in YPD media.

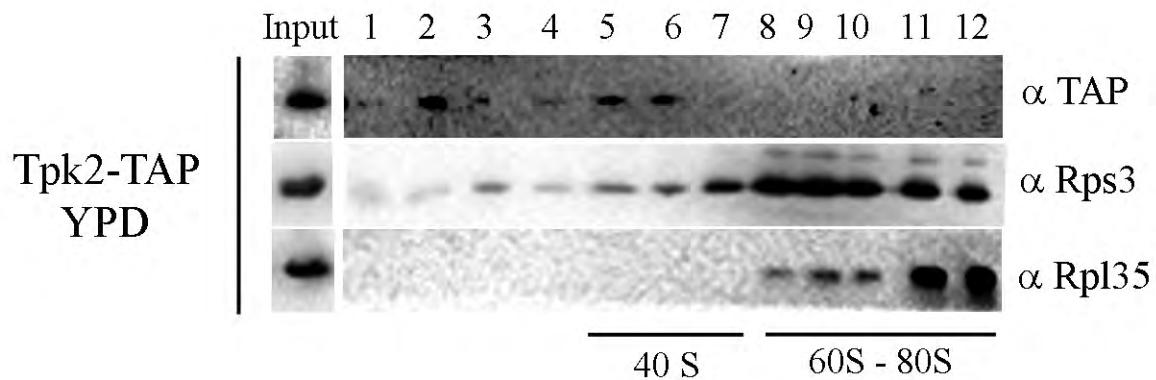
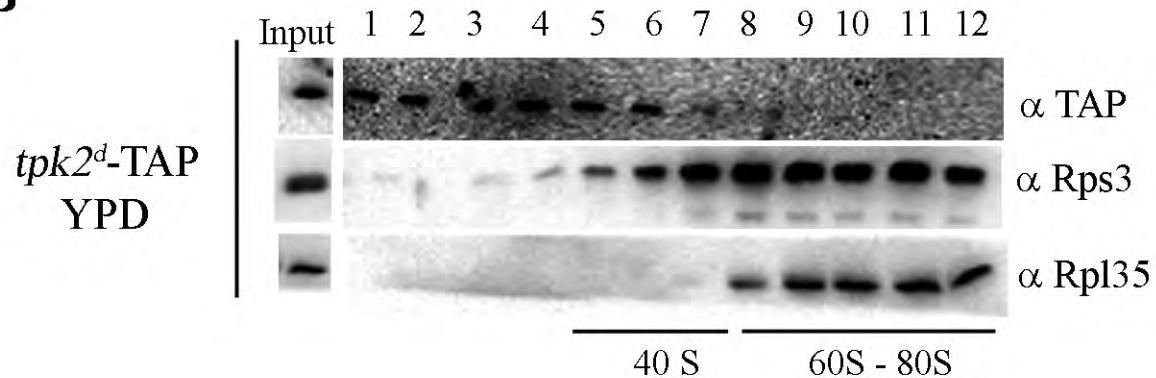
A**B**

Fig. S3. Kinase activity of Tpk2 is not required for its interaction with 40S subunits. Polysomal profile analysis and immunoblots of 7.5–30% sucrose gradient fractions from *tpk2 Δ* cells expressing Tpk2-TAP or *tpk2^d*-TAP grown to exponential phase in YPD. The fractions were processed as described in Fig. 3. Input lanes represent 5% of the input fraction.

Table S1. Strains and plasmids used in this study

| Strain | Genotype | Source |
|------------------------------------|---|-----------------|
| BY4742 | <i>MATA his3 leu2 lys2 ura3</i> | Ashe M. |
| W3031A | <i>MATA ade2-1 his3-11,15 leu2-3,112 trp1-1 ura3-1</i> | Euroscarf |
| S288C | <i>MATA his3Δ1 leu2Δ0 met15Δ0 ura3Δ0</i> | Open biosystems |
| <i>tpk2Δ</i> | <i>W3031A TPK2:kanMX4</i> | Euroscarf |
| <i>tpk3Δ</i> | <i>W3031A TPK3:kanMX4</i> | Euroscarf |
| <i>TPK1-TAP</i> | <i>S288C TPK1-TAP::HIS3</i> | Open biosystems |
| <i>TPK2-TAP</i> | <i>S288C TPK2-TAP::HIS3</i> | Open biosystems |
| <i>TPK3-TAP</i> | <i>S288C TPK3-TAP::HIS3</i> | Open biosystems |
| <i>TPK1-GFP</i> | <i>S288C TPK1-GFP::HIS3</i> | Invitrogen |
| <i>TPK2-GFP</i> | <i>S288C TPK2-GFP::HIS3</i> | Invitrogen |
| <i>TPK3-GFP</i> | <i>S288C TPK3-GFP::HIS3</i> | Invitrogen |
| <i>DCP1-RFP</i> | <i>MatΔ ADE2 his3-11,15 leu2-3,112 trp1-1 ura3-1 can1-100 GCD1-P180 DCP1-RFP::NAT</i> | Ashe M. |
| <i>DCP2-RFP TPK2-GFP</i> | <i>tpk2Δ + pDCP2-RFP + pTPK2-GFP</i> | This study |
| <i>DCP2-RFP TPK3-GFP</i> | <i>tpk3Δ + pDCP2-RFP + pTPK3-GFP</i> | This study |
| <i>DCP2-RFP tpk2d-GFP</i> | <i>tpk2Δ + pDCP2-RFP + pTPK2d-GFP</i> | This study |
| <i>DCP2-RFP tpk3d-GFP</i> | <i>tpk3Δ + pDCP2-RFP + pTPK3d-GFP</i> | This study |
| <i>eIF4E-RFP</i> | <i>Mata ADE2 his3-11,15 leu2-3,112 trp1-1 ura3-1 can1-100 GCD1-S180 CDC33-RFP::NAT</i> | Ashe M. |
| <i>DCP2-CFP</i> | <i>MatΔ ADE2 his3-11,15 leu2-3,112 trp1-1 ura3-1 can1-100 GCD1-P180 DCP2-CFP::TRP</i> | Ashe M. |
| <i>DCP2-CFP eIF4E-RFP</i> | <i>MATΔ ADE2 his3-11,15 leu2-3,112 trp1-1 ura3-1 can1-100 GCD1-S180 DCP2-CFP-TRP CDC33-RFP::NAT</i> | This study (1) |
| <i>DCP2-CFP eIF4E-RFP TPK1-GFP</i> | <i>MATΔ ADE2 his3-11,15 leu2-3,112 trp1-1 ura3-1 can1-100 GCD1-S180 DCP2-CFP-TRP CDC33-RFP::NAT TPK1-GFP::HIS</i> | This study (2) |
| <i>DCP2-CFP eIF4E-RFP TPK2-GFP</i> | <i>MATΔ ADE2 his3-11,15 leu2-3,112 trp1-1 ura3-1 can1-100 GCD1-S180 DCP2-CFP-TRP CDC33-RFP::NAT TPK2-GFP::HIS</i> | This study (2) |
| <i>DCP2-CFP eIF4E-RFP TPK3-GFP</i> | <i>MATΔ ADE2 his3-11,15 leu2-3,112 trp1-1 ura3-1 can1-100 GCD1-S180 DCP2-CFP-TRP CDC33-RFP::NAT TPK3-GFP::HIS</i> | This study (2) |
| <i>DCP2-CFP eIF4E-RFP tpk1Δ</i> | <i>MATΔ ADE2 his3-11,15 leu2-3,112 trp1-1 ura3-1 can1-100 GCD1-S180 DCP2-CFP-TRP CDC33-RFP::NAT tpk1Δ::URA3</i> | This study (4) |
| <i>DCP2-CFP eIF4E-RFP tpk2Δ</i> | <i>MATΔ ADE2 his3-11,15 leu2-3,112 trp1-1 ura3-1 can1-100 GCD1-S180 DCP2-CFP-TRP CDC33-RFP::NAT tpk2Δ::URA3</i> | This study (4) |
| <i>DCP2-CFP eIF4E-RFP tpk3Δ</i> | <i>MATΔ ADE2 his3-11,15 leu2-3,112 trp1-1 ura3-1 can1-100 GCD1-S180 DCP2-CFP-TRP CDC33-RFP::NAT tpk3Δ::URA3</i> | This study (4) |
| <i>DCP2-YFP eIF4E-CFP ENO2-MS2</i> | <i>MATA ADE2 his3-11,15 leu2-3,112 ura3-1 can1-100 GCD1-P180 DCP2-YFP-KanMX CDC33-CFP::TRP ENO2-MS2 + pCP-mCh-MS2</i> | Ashe M. (3) |

| | | |
|--|---|-----------------------|
| <i>DCP2-YFP eIF4E-CFP ENO2-MS2 Tpk1Δ</i> | <i>MATa ADE2 his3-11,15 leu2-3 112 ura3-1 can1-100 GCD1-P180 DCP2-YFP-KanMX CDC33-CFP::TRP ENO2-MS2 tpk1:URA3 + pCP-mCh-MS2</i> | <i>This study (4)</i> |
| <i>DCP2-YFP eIF4E-CFP ENO2-MS2 Tpk2Δ</i> | <i>MATa ADE2 his3-11,15 leu2-3 112 ura3-1 can1-100 GCD1-P180 DCP2-YFP-KanMX CDC33-CFP::TRP ENO2-MS2 tpk2:URA3 + pCP-mCh-MS2</i> | <i>This study (4)</i> |
| <i>DCP2-YFP eIF4E-CFP ENO2-MS2 Tpk3Δ</i> | <i>MATa ADE2 his3-11,15 leu2-3 112 ura3-1 can1-100 GCD1-P180 DCP2-YFP-KanMX CDC33-CFP::TRP ENO2-MS2 tpk3:URA3 + pCP-mCh-MS2</i> | <i>This study (4)</i> |

(1). *CDC33-RFP DCP2-CFP* (*CDC33* encodes eIF4E) was constructed by crossing *CDC33-RFP* strain with *DCP2-RFP* strain (Oshima and Takano, 1980).

(2). *CDC33-RFP DCP2-CFP TPK1-GFP*, *CDC33-RFP DCP2-CFP TPK2-GFP* and *CDC33-RFP DCP2-CFP TPK3-GFP* were obtained by transformation of *CDC33-RFP DCP2-CFP* by epitope tagging (Huh et al., 2003).

(3). MS2 sequences were inserted into the 3'UTR of the *ENO2* gene (Haim et al., 2007).

(4). Deletions in each *tpkΔ* were constructed by one-step disruption technique (Rothstein, 1991).

Table S2. Plasmids used in this study

| Plasmids | Description | Source |
|------------------------------|---|-------------------|
| <i>pTPK2-GFP</i> | <i>pTD46, CEN, LEU2, TPK2 promoter, TPK2-GFP</i> | <i>This study</i> |
| <i>pTPK3-GFP</i> | <i>pTD49, CEN LEU2, TPK3 promoter, TPK3-GFP.</i> | <i>This study</i> |
| <i>ptpk2^d-GFP</i> | <i>pTD55, CEN, LEU2, TPK2 promoter, TPK2^{K99M}-GFP.</i> | <i>This study</i> |
| <i>ptpk3^d-GFP</i> | <i>pTD49, CEN, LEU2, TPK3 promoter, TPK3^{K117M}-GFP.</i> | <i>This study</i> |
| <i>ptpk2^d-TAP</i> | <i>pTD55, CEN, LEU2, TPK2 promoter, TPK2^{K99M}-TAP.</i> | <i>This study</i> |
| <i>pTPK2-TAP</i> | <i>pTD46, CEN, LEU2, TPK2 promoter, TPK2-TAP</i> | <i>This study</i> |
| <i>pCP-mCh-MS2</i> | <i>CEN, HIS3, mCh-MS2</i> | <i>Ashe M.</i> |
| <i>pDCP2-RFP</i> | <i>pRP1156, CEN, TRP, DCP2 promoter, DCP2-GFP</i> | <i>Parker R.</i> |