Consensus
yeast Emp46 yeast Emp47 human ERGIC-53

## Consensus

yeast Emp46
yeast Emp47
human ERGIC-53

## Consensus

yeast Emp46 yeast Emp47 human ERGIC-53

## Consensus

yeast Emp46 yeast Emp47 human ERGIC-53

## Consensus

yeast Emp46 yeast Emp47 human ERGIC-53

## Consensus

yeast Emp46 yeast Emp47 human ERGIC-53

## Consensus

yeast Emp46 yeast Emp47 human ERGIC-53

## Consensus

yeast Emp46 yeast Emp47 human ERGIC-53

## Consensus

yeast Emp46 yeast Emp47 human ERGIC-53
 MTTRKTASSLQLLGKITGTKAGTKQKKMNFINGLIWLYMCVWMVHGKVTQKDEL------ 54
 - MAGSRQRGLRARVRPLFCALLLSLGRF -VRGDGVGGDPAVALPHR 44
$\mathbf{K} \times \times \times \times$ YSL- - P $\times \mathbf{L} \times \mathbf{- - \mathbf { - }} \times \times \times \mathbf{K} \times \times \times \times \mathbf{W} \times \times \mathbf{G} \times \times \mathbf{A} \times \mathbf{L E E G R I V L T P} \times \mathbf{- K} \times \mathbf{K} \mathbf{G S} \mathbf{L} \mathbf{W} \mathbf{L K} \times \times \times \times \times$ KWNKGYSL--PNLLEVTDQQKELSQWTLGDKVKLEEGRFVLTPG-KNTKGSLWLKPEYSI 111 KLSSDYSL--PDLI---NARKVPNNWQTGEQASLEEGRIVLTSK-QNSKGSLWLKQGFDL 92 RFEYKYSFKGPHLV---QSDGTVPFWAHAGNAIPSSDQIRVAPSLKSQRGSVWTKTKAAF 101

KD $\times$ T $\times \mathbf{E W T F R S} \times \mathbf{G} \times \mathbf{G} \times \mathbf{T} \times \mathbf{G} \mathbf{L} \mathbf{A F W} \times \times \mathbf{Q}-\times \mathbf{N} \times \mathbf{G} \times \times \times \mathbf{L F} \mathbf{G} \mathbf{G} \times \times \mathbf{-} \times \times \mathbf{N G L} \times \mathbf{I} \mathbf{L} \times \mathbf{D} \times \mathbf{D} \times \mathbf{L}$ KDAMTIEWTFRSFGFRGSTKGGLAFWLKQ-GNEGDSTELFGGSSKKFNGLMILLRLDDKL 170 KDSFTMEWTFRSVGYSGQTDGGISFWFVQDSNVPRDKQLYNGPV-NYDGLQLLVDNNGPL 151 EN - WEVEVTFRVTGRGRIGADGLAIWYAE--NQGLEGPVFGSAD-LWNGVGIFFDSFDND 157
 G----ESVTAYLNDGTKDLDIESSPY---FASCLFQYQDSMVPSTLRLTYN-----PLD 217 G----PTLRGQLNDGQKPVD-KTKIYDQSFASCLMGYQDSSVPSTIRVTYD-----LED 200 GKKNNPAIVIIGNNGQIHYDHQNDGASQALASCQRDFRNKPYPVRAKITYYQNTLTVMIN 217
$\mathbf{N} \times \mathbf{L L K} \times \mathbf{Q} \times \mathbf{D N} \times \mathbf{V C F Q T R K V} \times \mathbf{F} \times \mathbf{S G} \times \mathbf{F I G} \times \mathbf{S A} \times \mathbf{N G A} \times \times \times \times \times$ ESFEILKMQLXX-GVIED NHLLKLQMDNRVCFQTRKVKFMGSSPFRIGTSAINDA---SKESFEILKMKLYD-GVIED 273 DNLLKVQVDNKVCFQTRKVRFP-SGSYRIGVTAQNGAVNNNAESFEIFKMQFFN-GVIED 258 NGFTPDKNDYEFCAKVENMITPAQGHF--GISAATGGLADDHDVLSFLTFQLTEPGKEPP 275



ERELIQRL-------RPLLDLKKTAISDDS-------FQDFLSMNANLDRLIKE----- 388 QQELLSFMTTITKQLSSKPPANNEKGTSTDDAIAEDKENFKDFLSINQKLEKVLVE--- - 389 QHEILRQVNEMKNSM--SETVRLVSGMQHPGSAGGVYETTQHFIDIKEHLHIVKRDIDNL 453

- QEK $\times \mathbf{R} \times \times \times \mathbf{K} \times \mathbf{G} \times \times \times \mathbf{P} \times \mathbf{D E I} \times \mathbf{S K} \times \times \times \mathbf{W} \times \times \mathbf{L I F I M L} \times \times \mathbf{A Y Y M F R I} \times \mathbf{Q E I} \times \mathbf{K} \times \mathbf{K L}$ -QEKIRQDAKLYGKQTKGHDEIFSKISVWLALLIFIMITLAYYMFRINQDIKKVKLL 444 -QEKYREATKRHGQDGPQVDEIARKLMIWLLPLIFIMLVMAYYTFRIRQEIIKTKLL 445 VQRNMPSNEKPKCPELPPFPSCLSTVHFIIFVVVQTVLFIGYIMYRSQQEAAAKKFF 510

