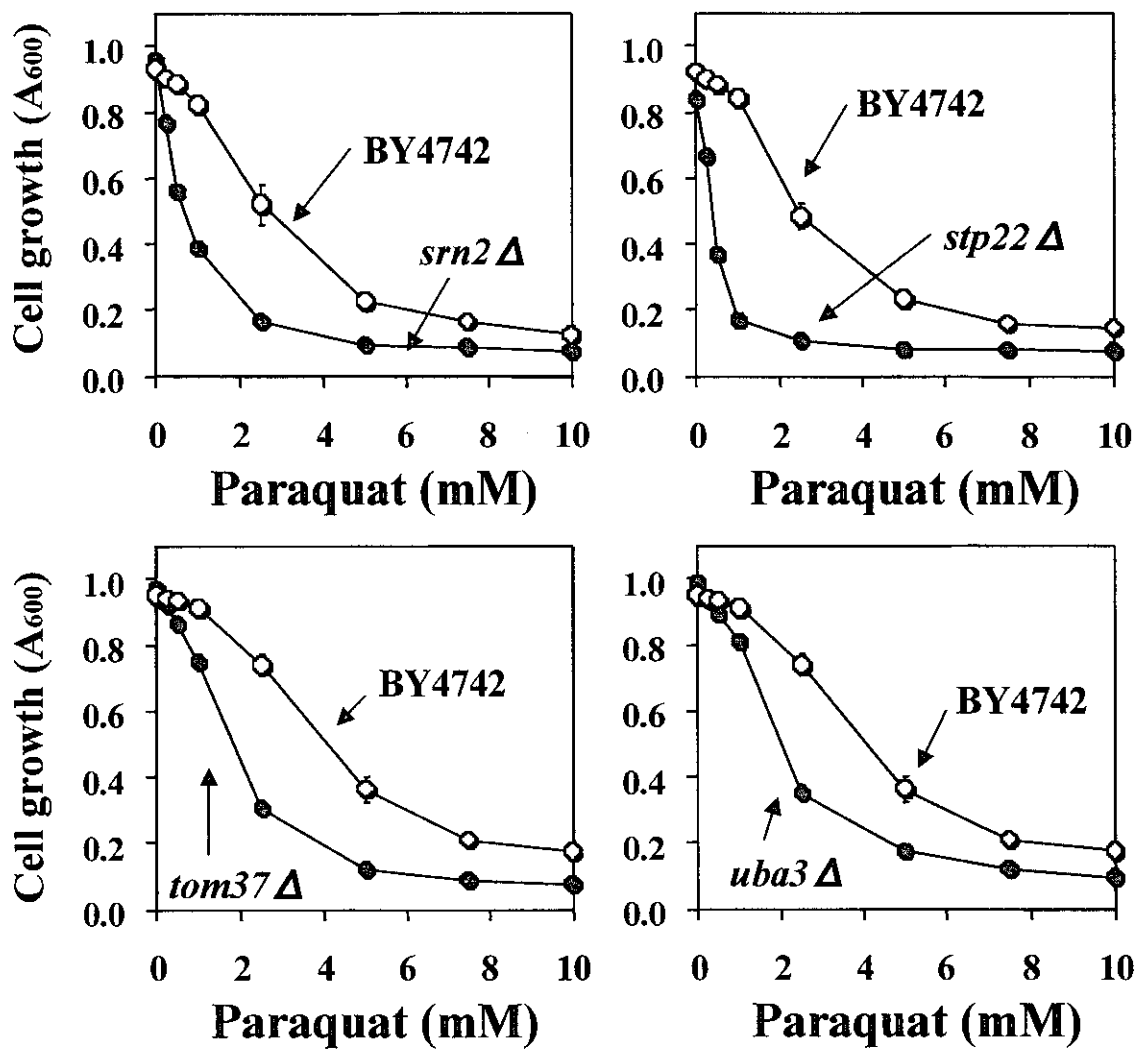


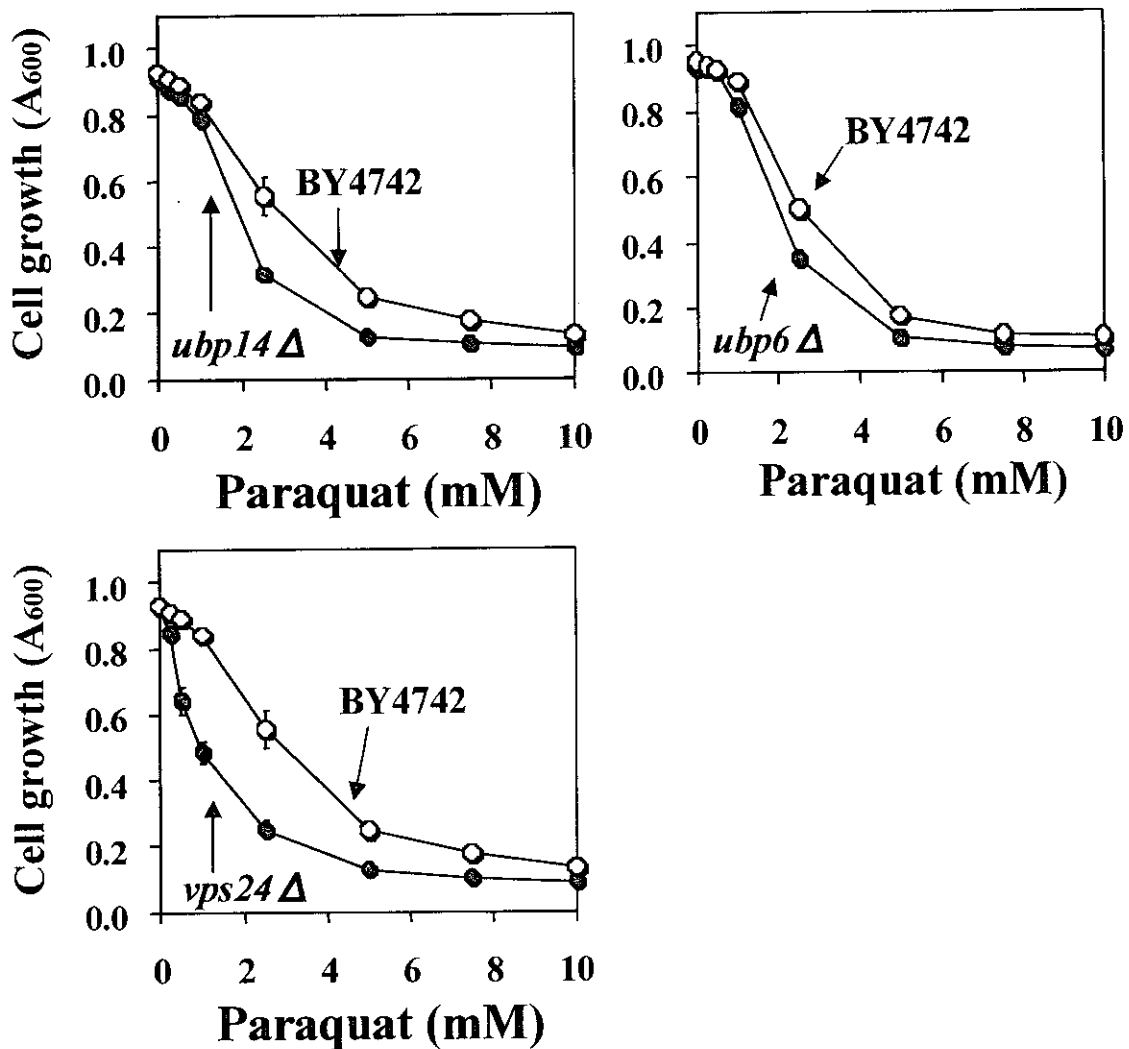
PEP12 : t-SNARE involved in Golgi to vacuole transport
RCY1 : F-box protein involved in endocytic membrane traffic and recycling out of early endosome
SNF7 : Involved in protein sorting in the pre-vacuolar endosome, component of the ESCRT-III complex
SNF8 : Class E vacuolar sorting protein, component of the ESCRT-II complex

Fig. 5-4 Sensitivity of *PEP12*, *RCY1*, *SNF7*, or *SNF8* deletion mutant to paraquat



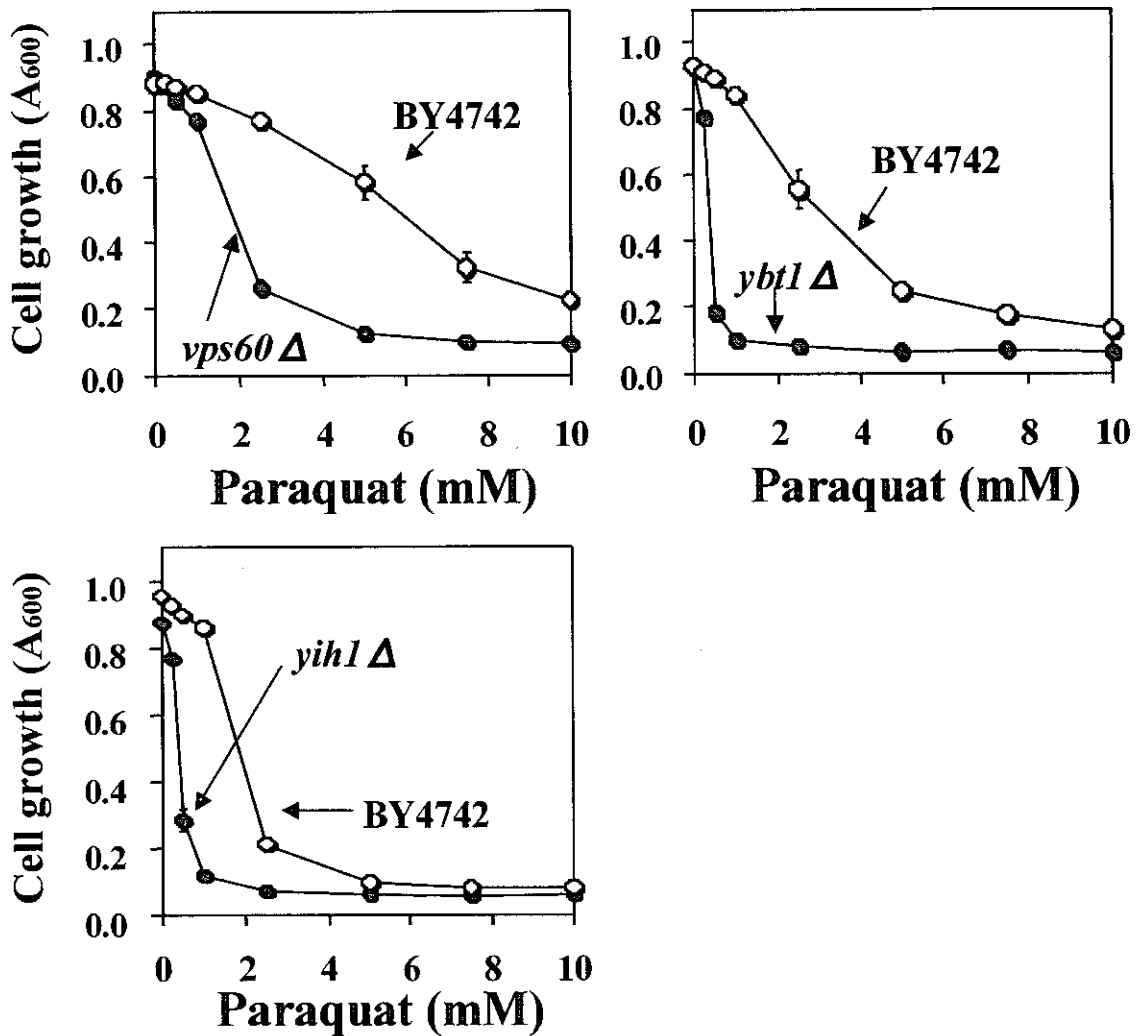
SRN2 : Class E vacuolar sorting protein, component of the ESCRT- I complex
STP22 : Required for vacuolar targeting of plasma membrane protein, component of ESCRT- I complex
TOM37 : Component of the mitochondrial outer membrane receptor (TOM) complex
UBA3 : Rub1-activating enzyme, similar to ubiquitin-activating E1-like protein

Fig. 5-5 Sensitivity of *SRN2*, *STP22*, *TOM37* or *UBA3* deletion mutant to paraquat



UBP14 : Ubiquitin-specific protease, ubiquitin C-terminal hydrolase
UBP6 : Ubiquitin C-terminal hydrolase associated with the 26S proteasome, involved in ubiquitin turnover
VPS24 : Component of the ESCRT-III complex

Fig. 5-6 Sensitivity of *UBP6*, *UBP14* or *VPS24* deletion mutant to paraquat

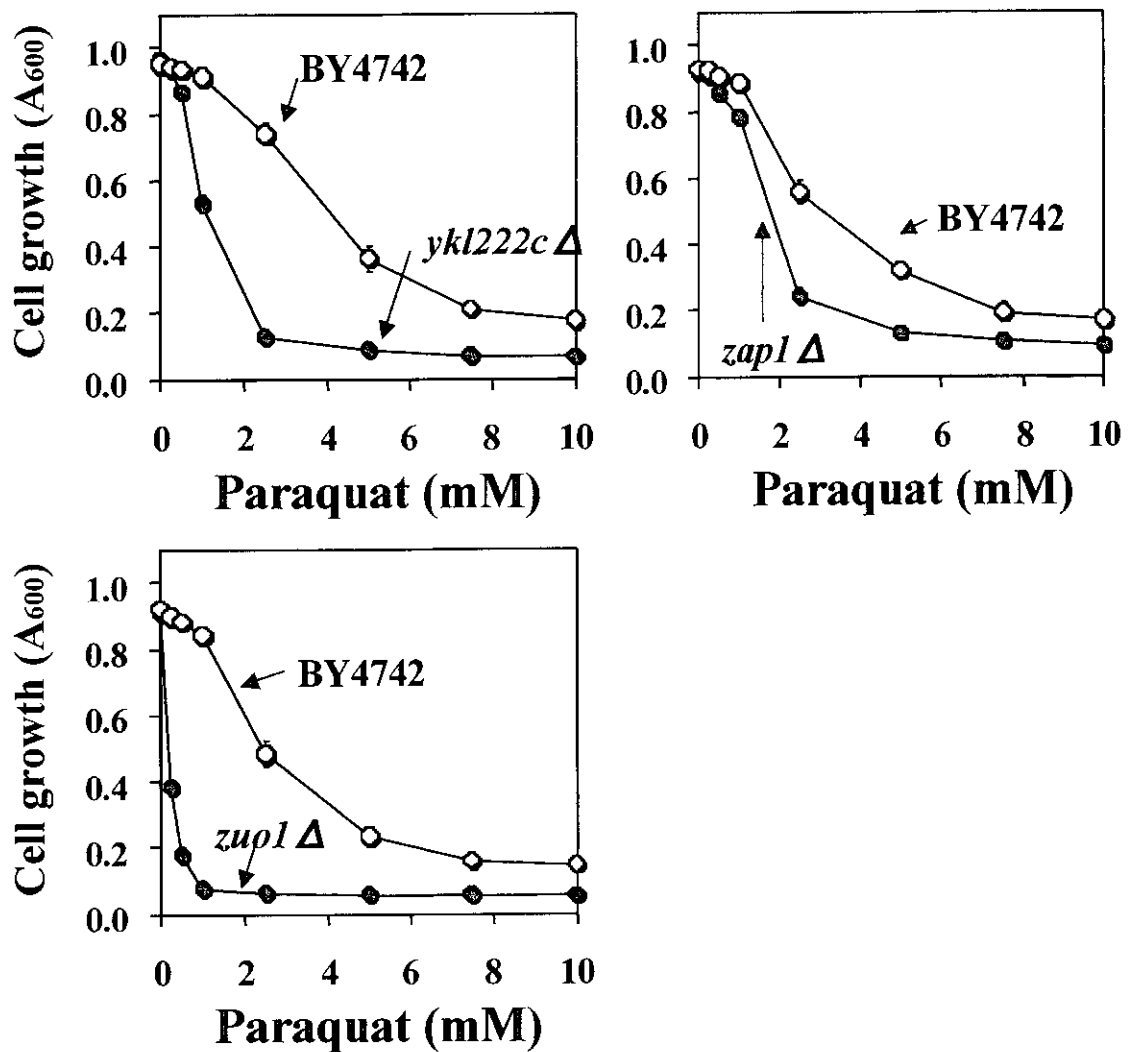


VPS60 : Protein with possible role in vacuolar protein sorting, has similarity to Snf7p

YBT1 : Similarity to mammalian ATP-dependent bile acid transporter

YIH1 : Protein with a possible function in general amino acid control response

Fig. 5-7 Sensitivity of *VPS60*, *YBT1* or *YIH1* deletion mutant to paraquat



YKL222c: protein with similarity to transcriptional factors
ZAPI : zinc-responsive transcriptional activator, regulates genes involved in zinc uptake
ZUO1 : zuotin (Z-DNA-binding protein)

Fig. 5-8 Sensitivity of *YKL222c*, *ZAP1* or *ZUO1* deletion mutant to paraquat

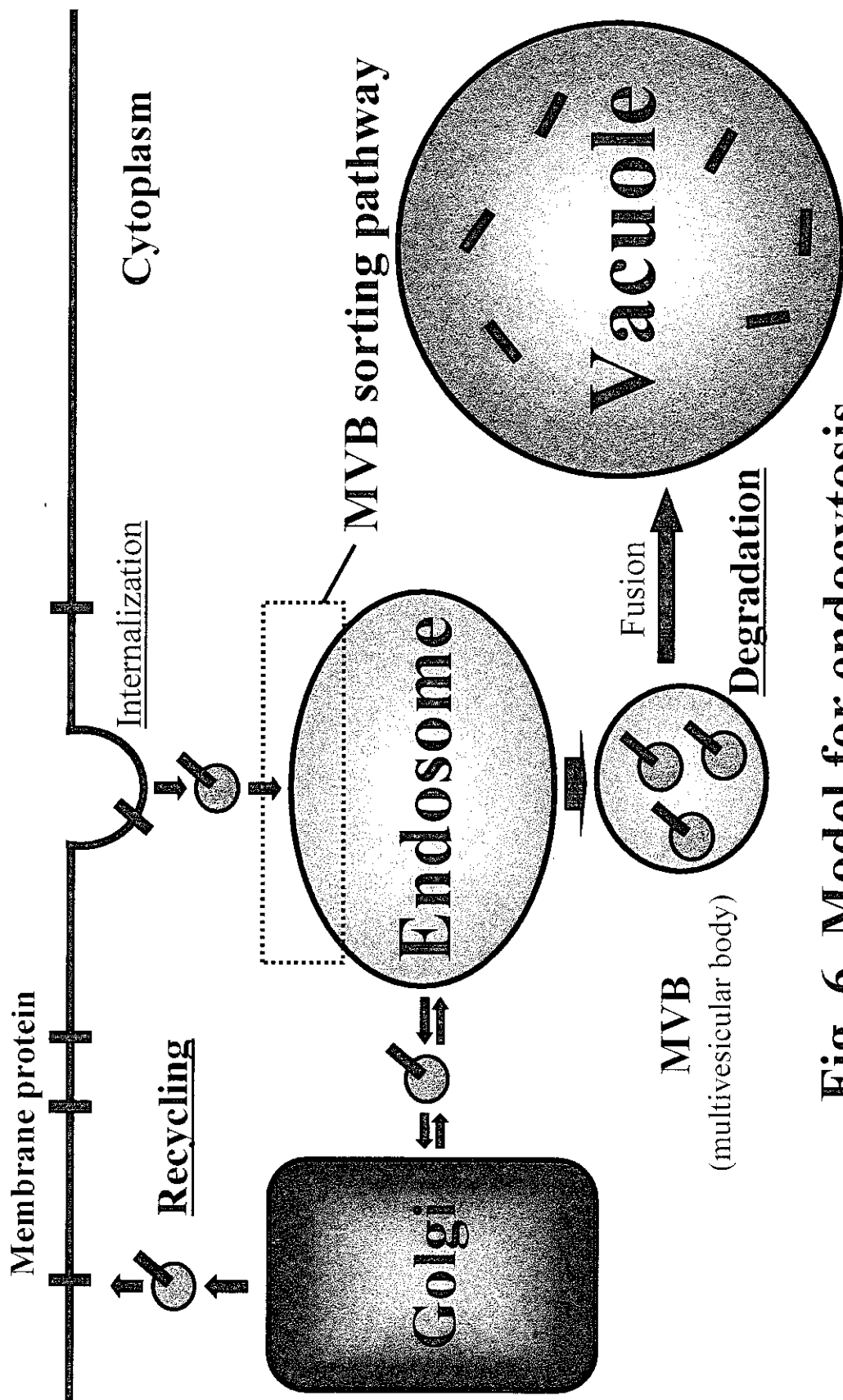


Fig. 6 Model for endocytosis

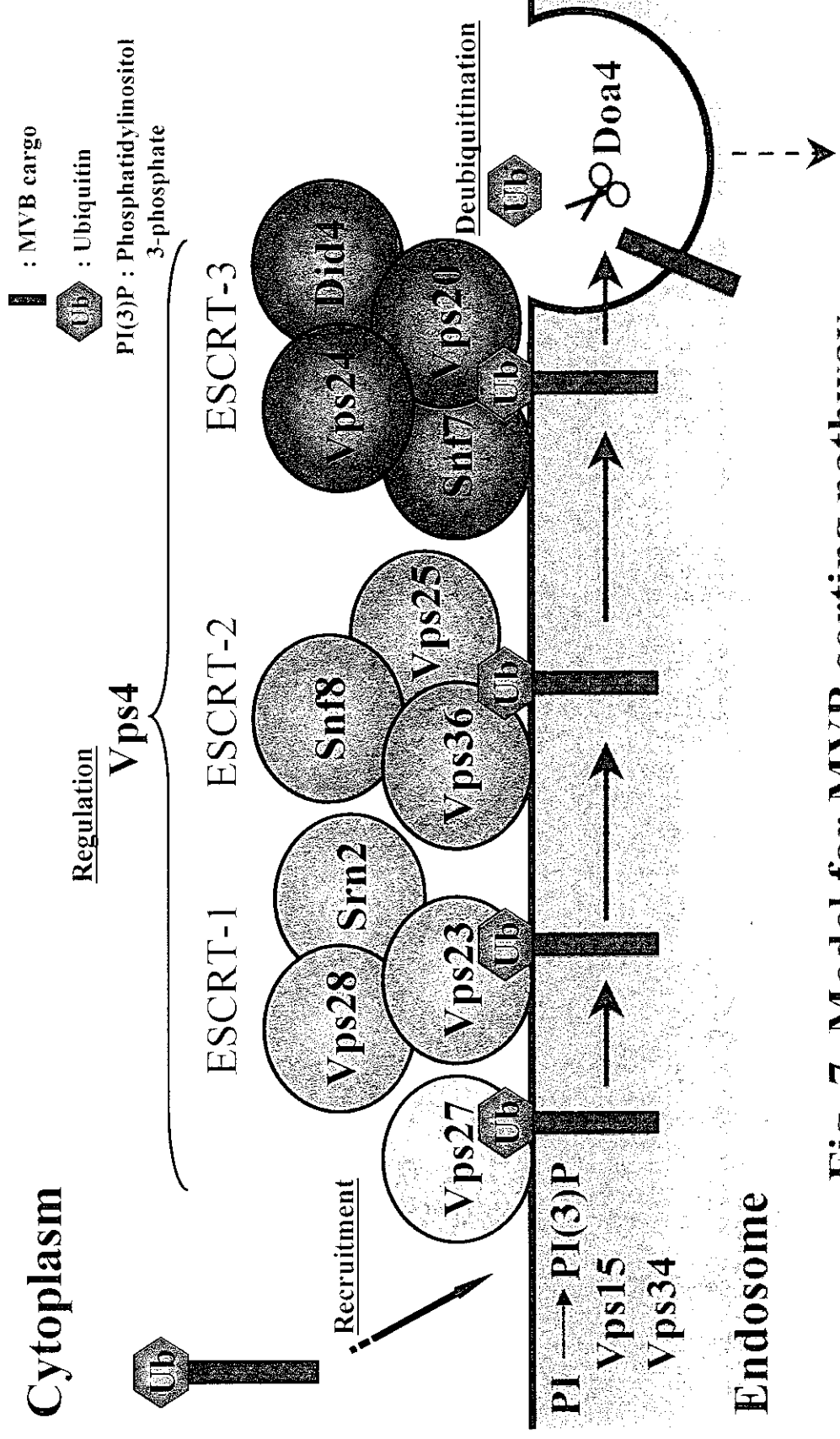


Fig. 7 Model for MVB sorting pathway

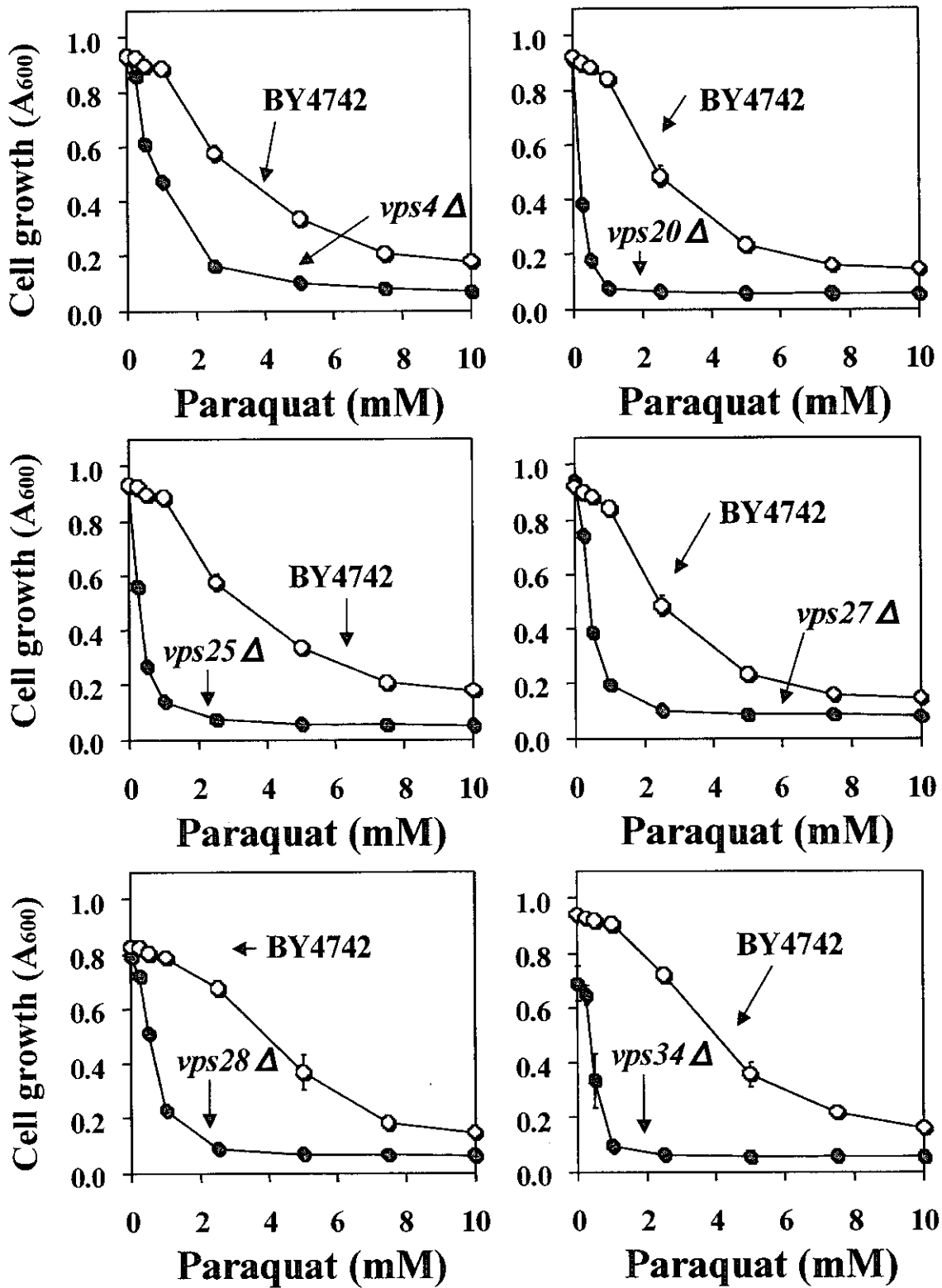


Fig. 8 Sensitivity of *VPS4*, *VPS20*, *VPS25*, *VPS27*, *VPS28* or *VPS34* deletion mutant to paraquat

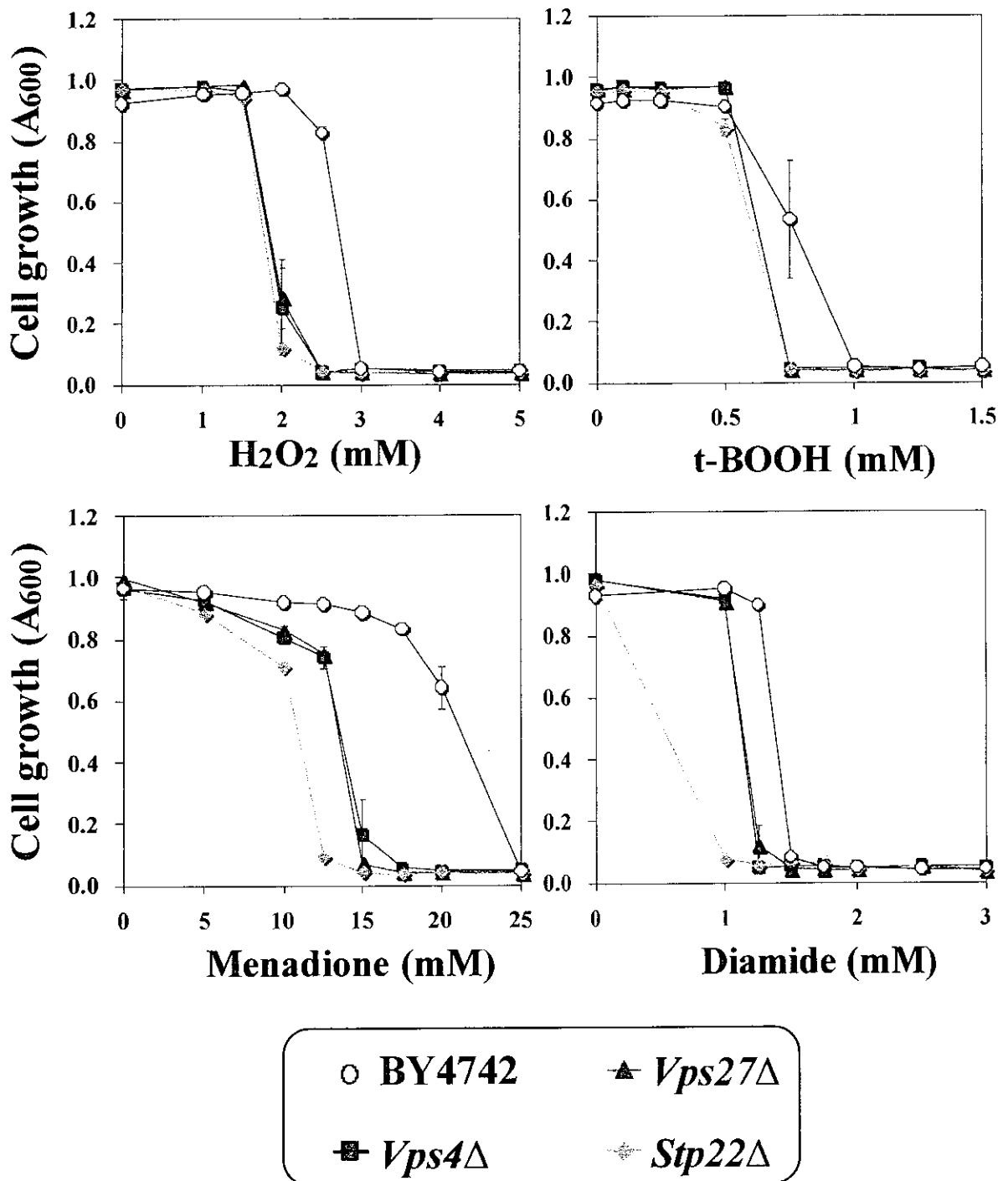
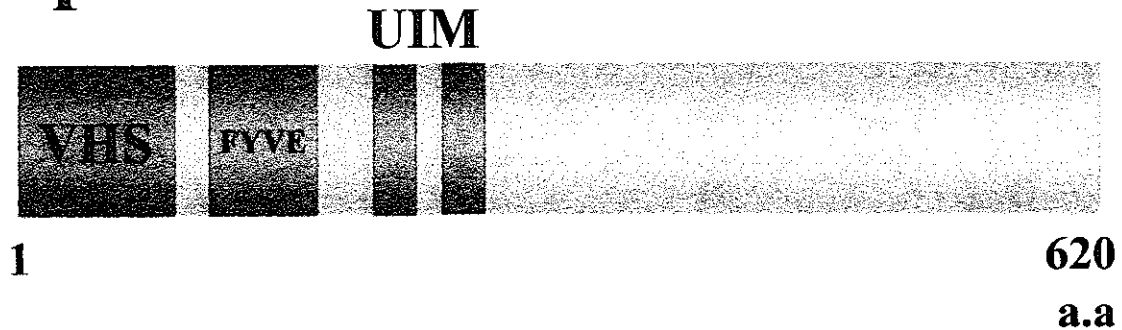


Fig. 9 Effects of deletion of genes related MVB sorting pathway on sensitivity to various drug-induced stress

Vps27



VHS : Efficient binding to ubiquitin

FYVE : Bind specifically to PI(3)P

UIM : Ubiquitin-interacting motifs

Fig. 10 Schematic representation of Vps27

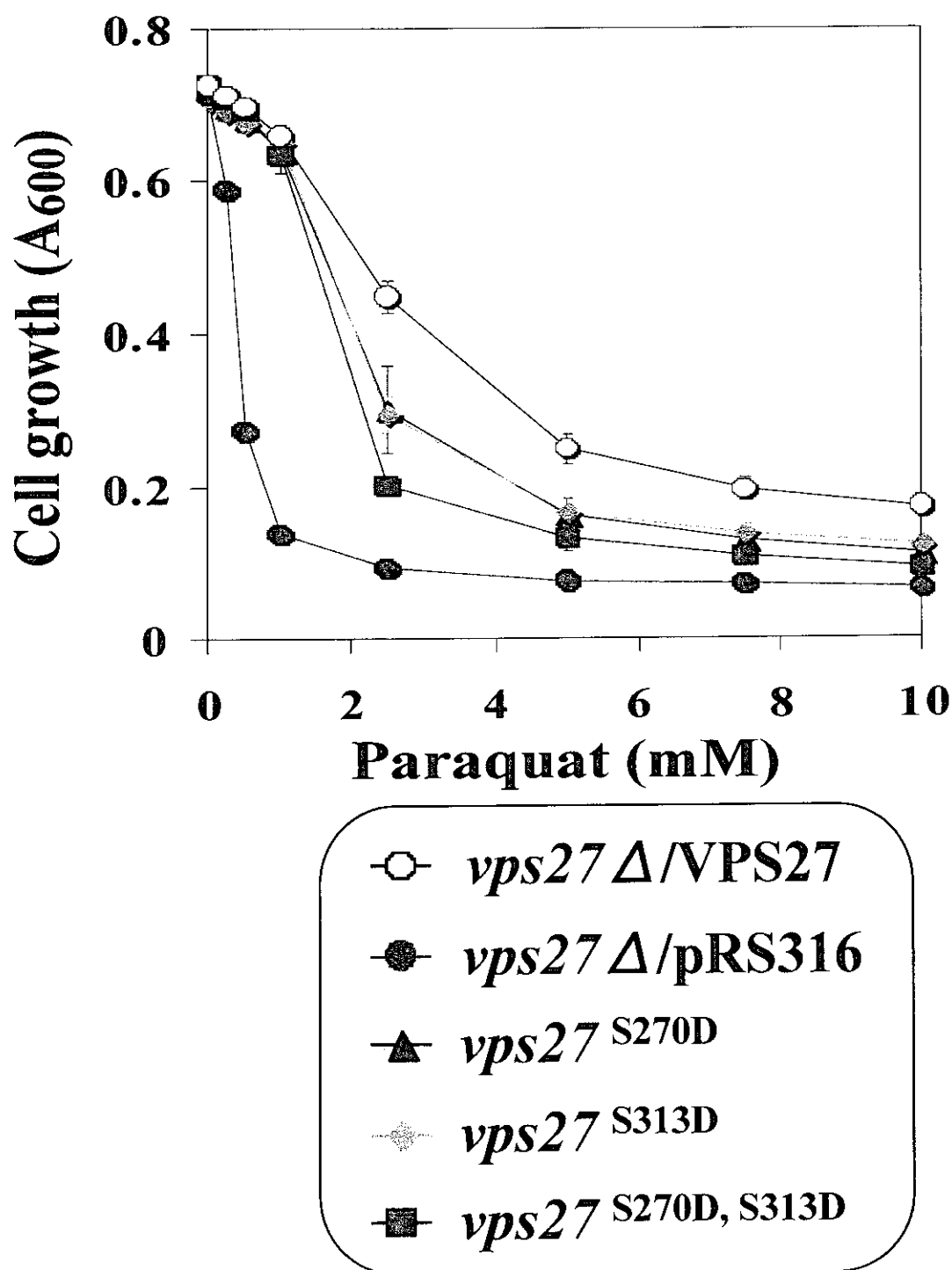


Fig. 11 Effect of point mutations in UIM domains of Vps27 on paraquat sensitivity

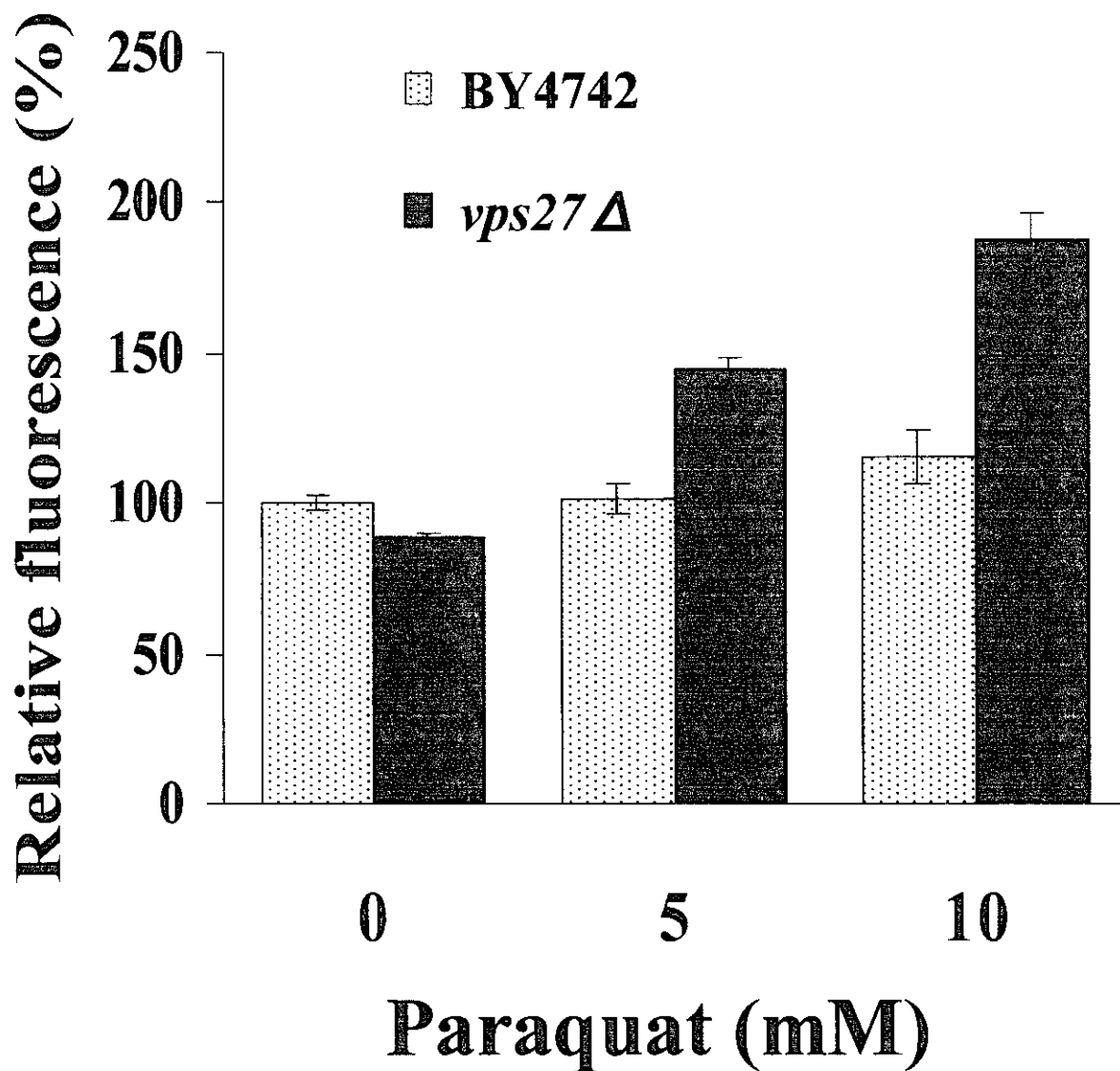


Fig. 12 Effects of deletion of *VPS27* on intercellular ROS levels by paraquat

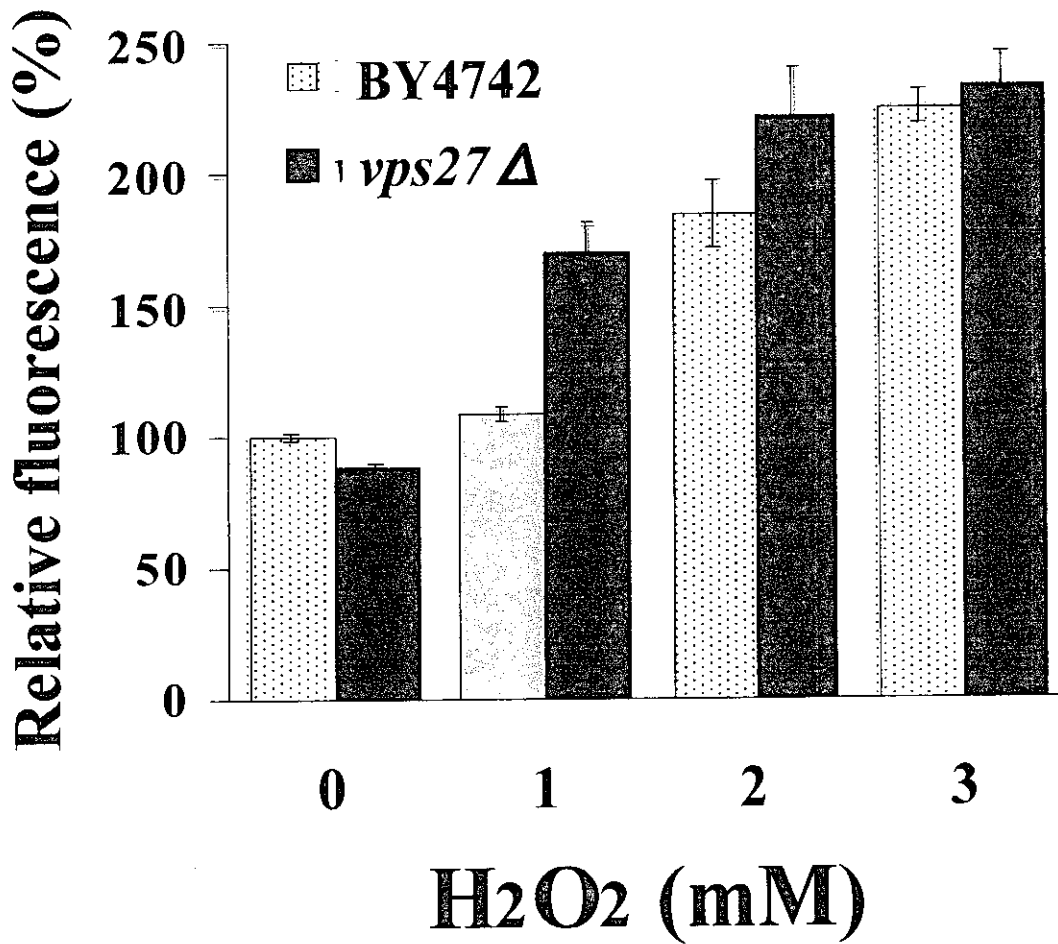


Fig. 13 Effects of deletion of *VPS27* on intercellular ROS levels by hydrogen peroxide

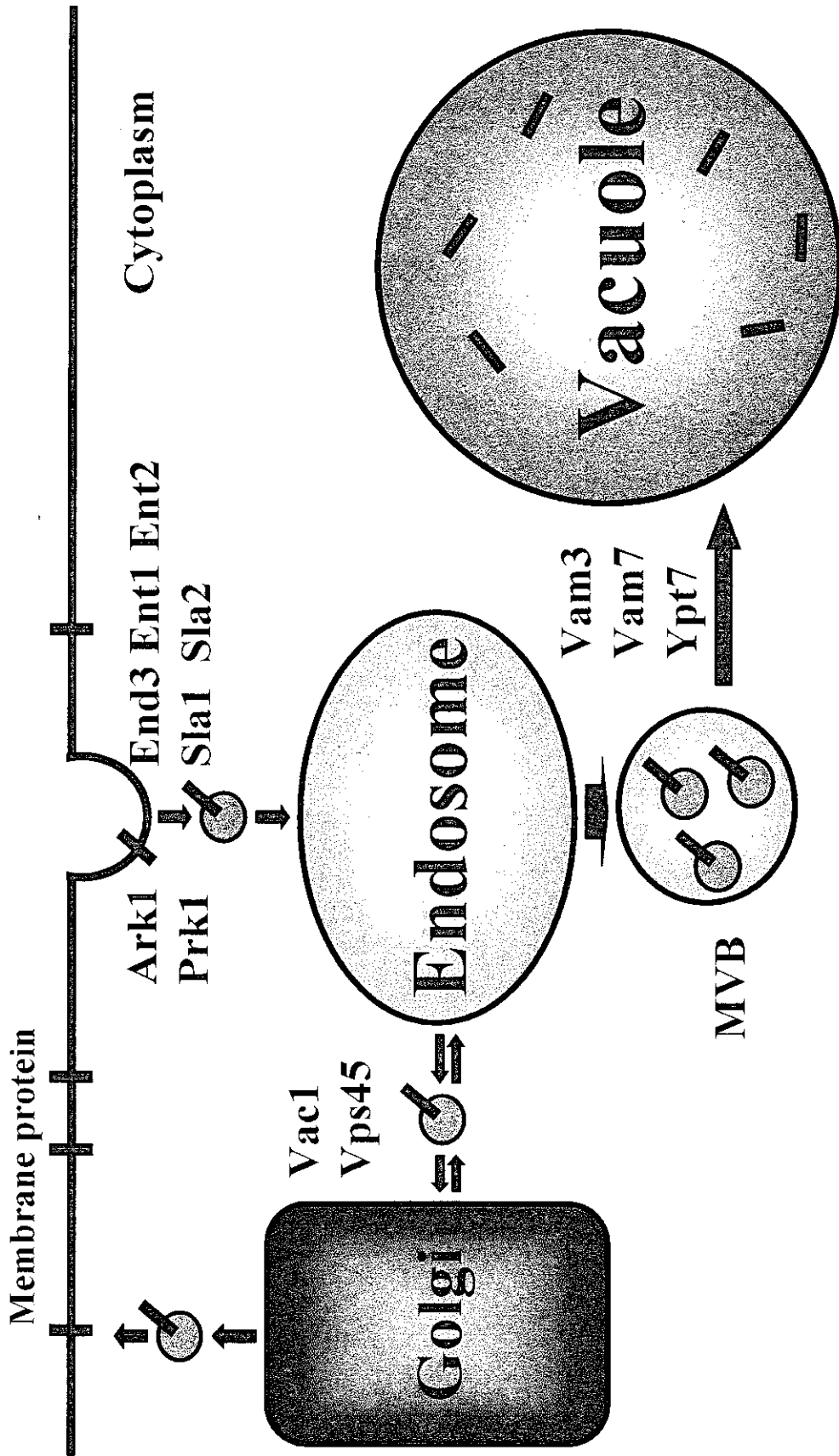


Fig. 14 Localization of factor group of endocytosis

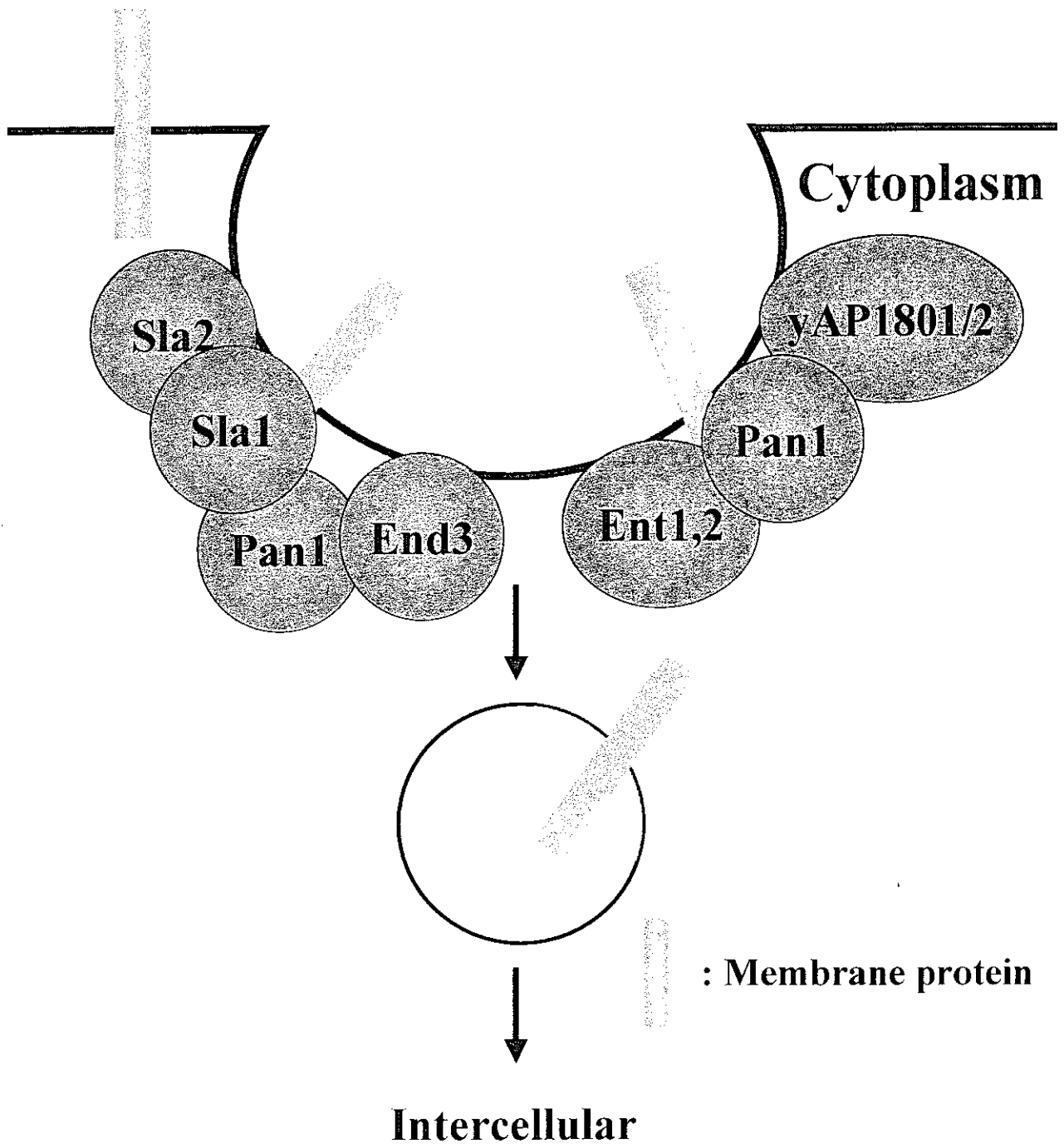


Fig. 15 Model for internalization step of endocytosis in yeast

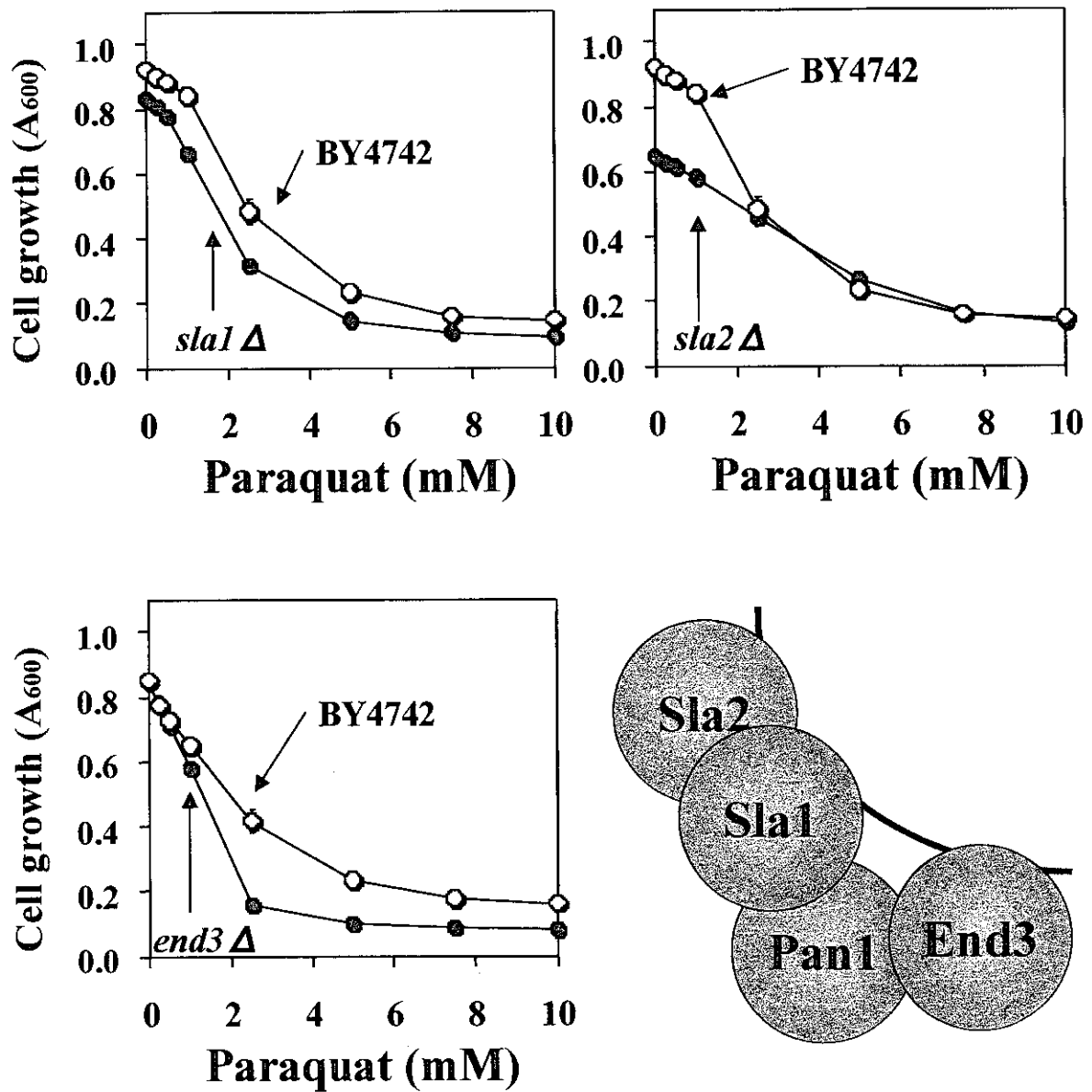


Fig. 16 Sensitivity of *END3*, *SLA1* or *SLA2* deletion mutant to paraquat

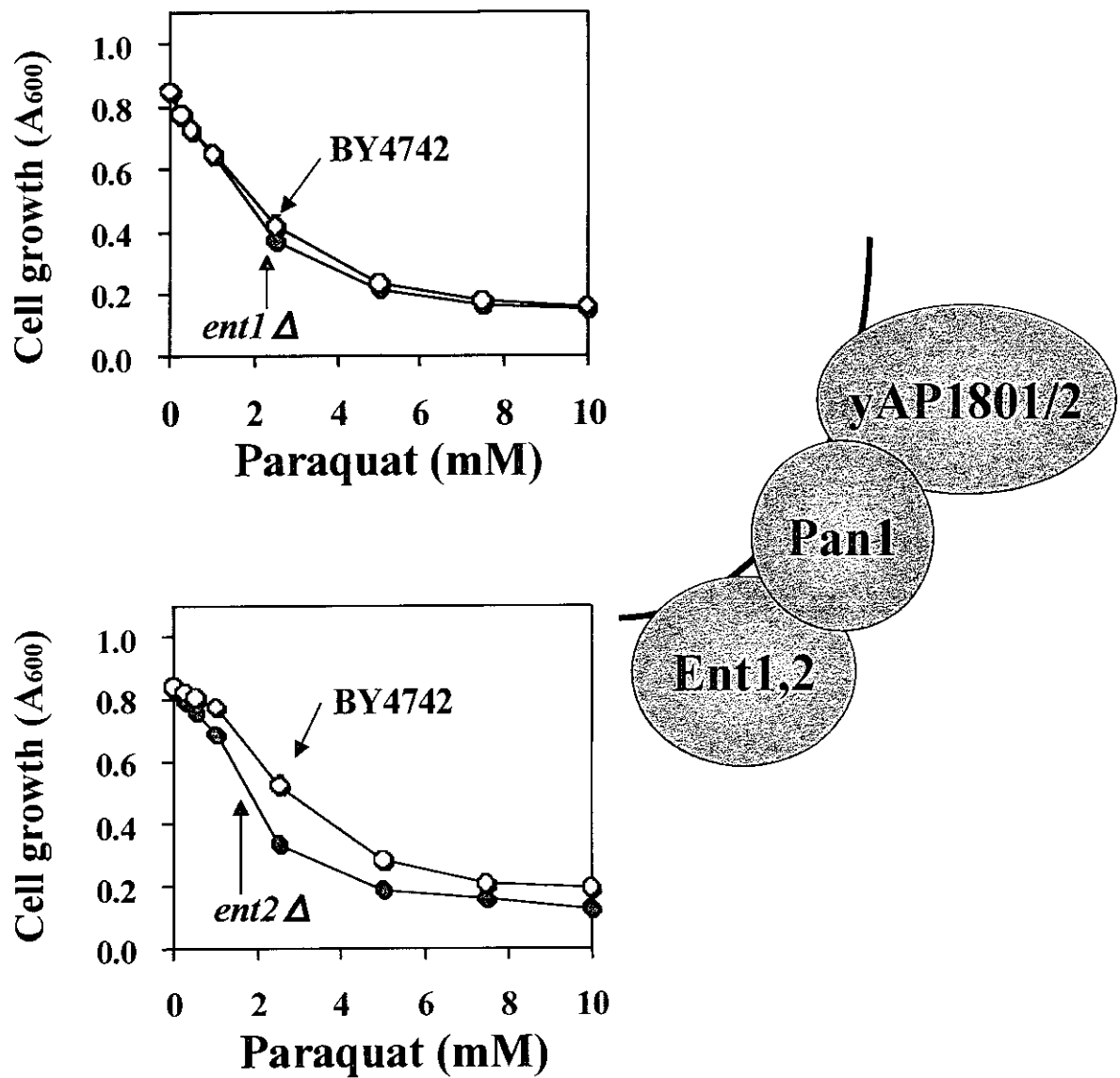
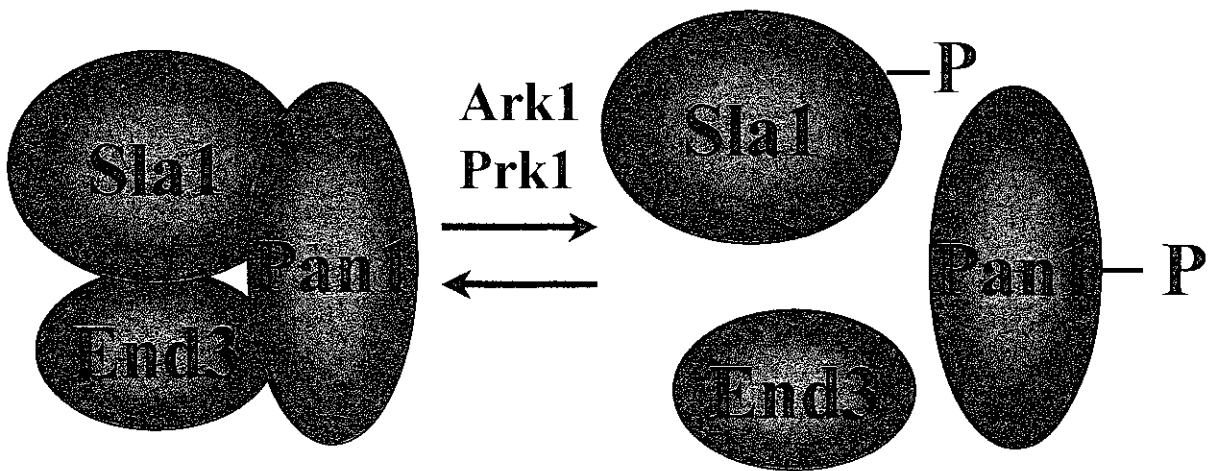
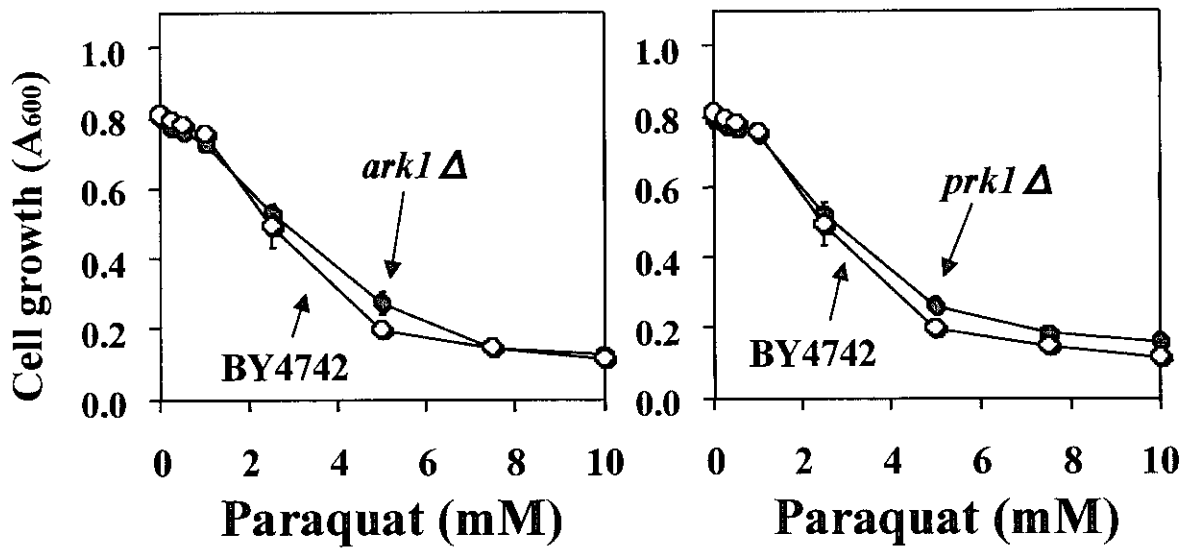


Fig. 17 Sensitivity of *ENT1* or *ENT2* deletion mutant to paraquat



P : Phosphorylation

Fig. 18 Sensitivity of *ARK1* or *PRK1* deletion mutant to paraquat

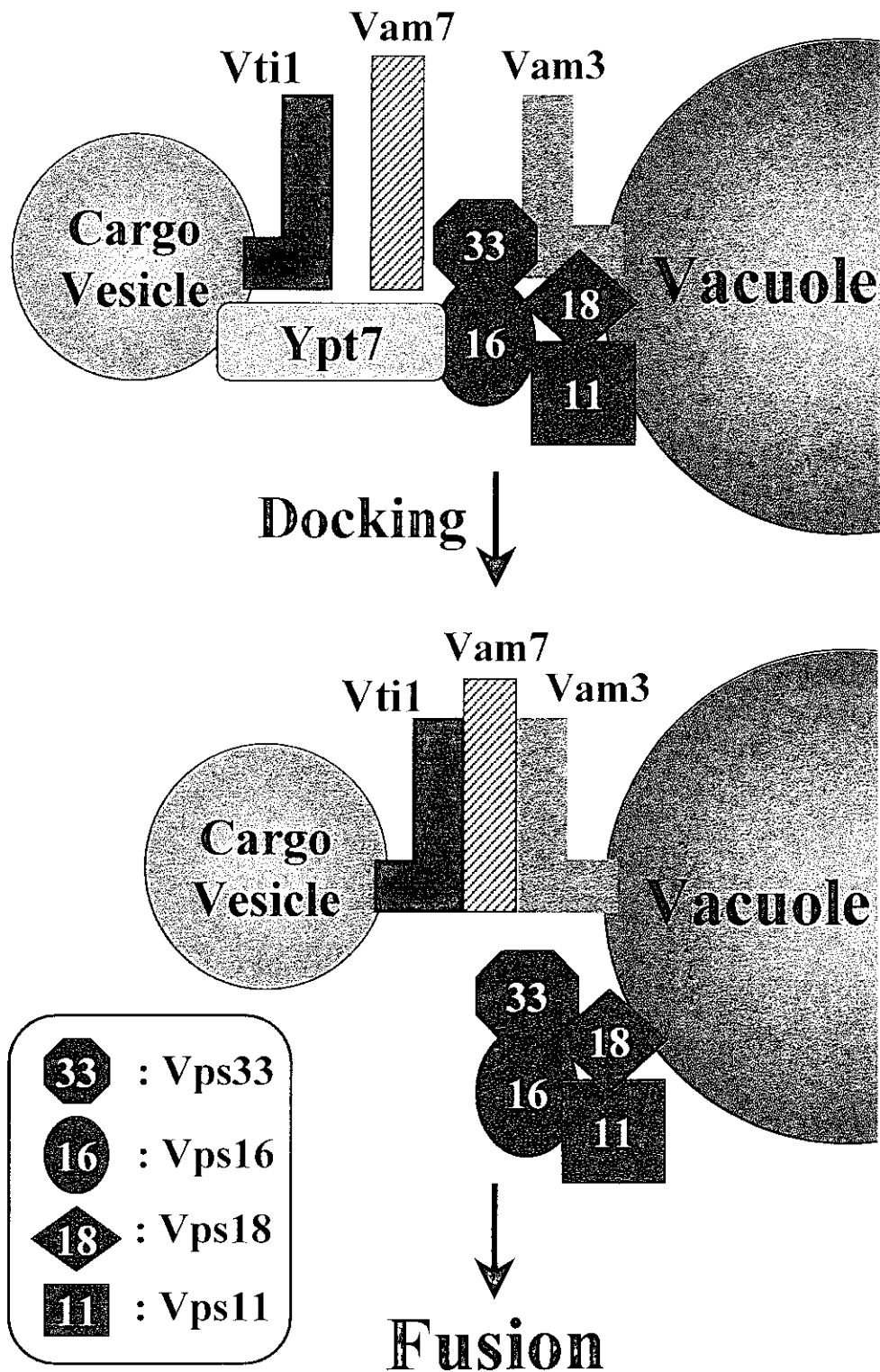


Fig. 19 Model for vacuole-vesicle fusion

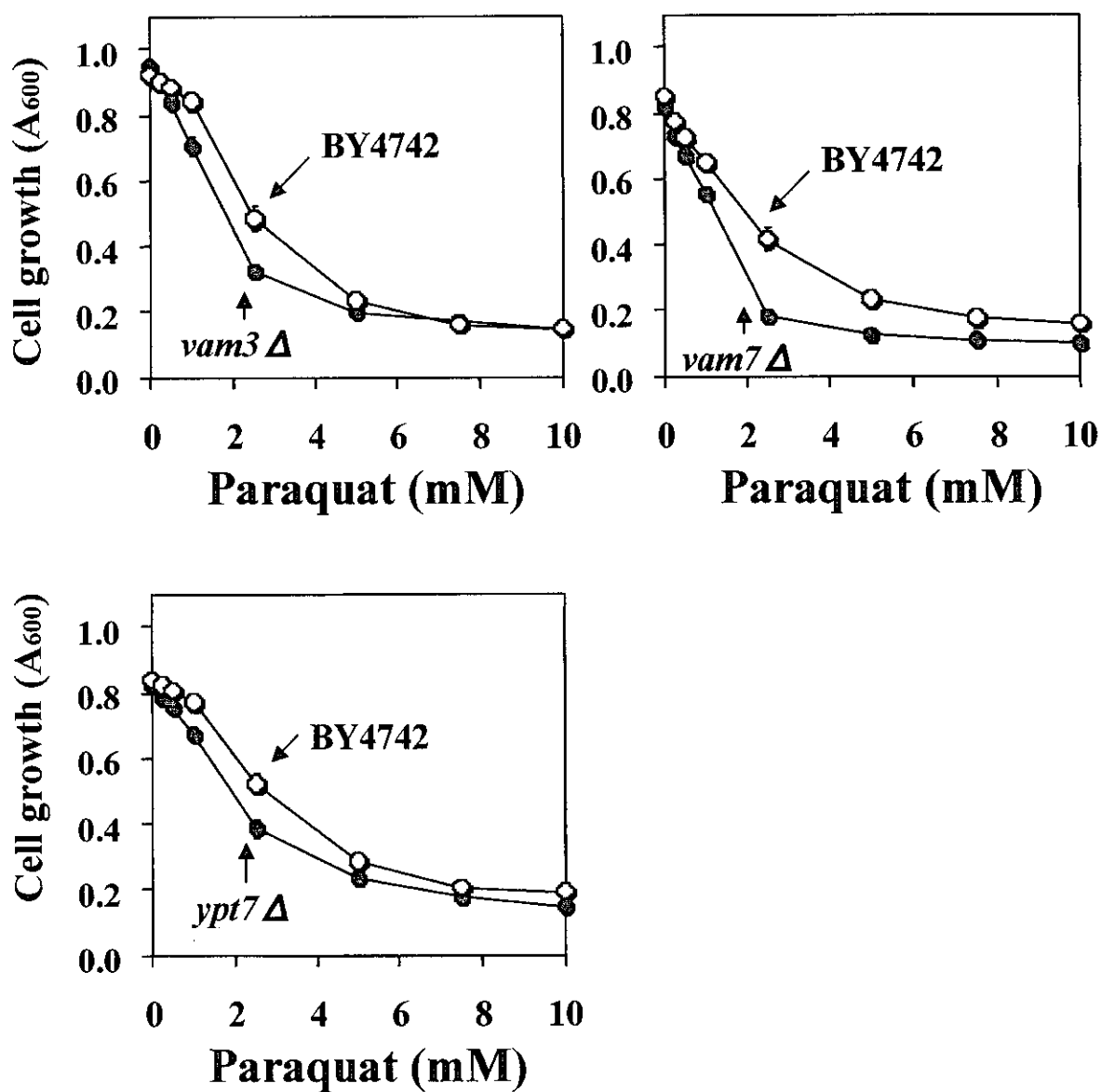


Fig. 20 Sensitivity of *VAM3*, *VAM7* or *YPT7* deletion mutant to paraquat