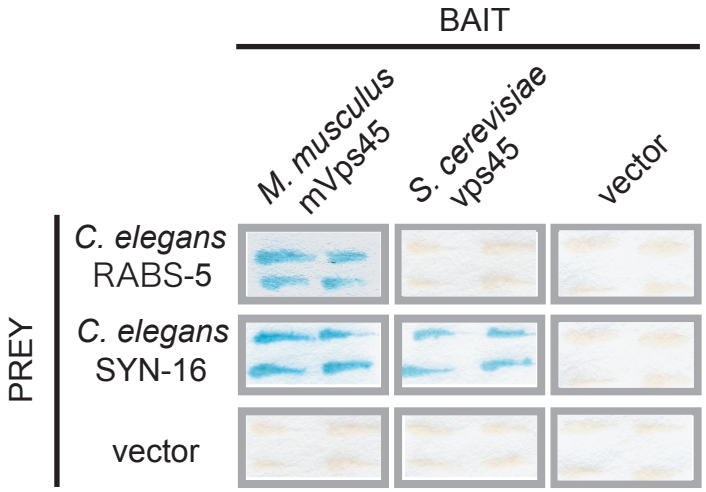
A

genetic background	transgene (species)	viability	endocytosis in coelomocytes
+/+	-	+	+
vps-45 (tm246)	-	-	-
vps-45 (tm246)	*vps-45* (*C. elegans*)	+ (3/3)	+ (2/2)
vps-45 (tm246)	mVps45 (*M. musculus*)	+ (4/4)	+ (2/2)
vps-45 (tm246)	vps45 (*S. cerevisiae*)	- (0/3)	- (0/3)

B



Supplementary Figure 7

Supplementary Figure 7. The mammalian ortholog is functionally interchangeable with *C. elegans vps-45*. (A) Rescue experiments using transgenic worms expressing Vps45 from *C. elegans*, mouse and yeast in the *vps-45* mutant background. The lethal and endocytosis phenotypes (Cup) were rescued by mammalian ortholog, but were not rescued by yeast ortholog. + means "rescued", - means "not rescued". Numbers of rescued lines/total lines are indicated in parenthesis. (B) Yeast two hybrid assay. Yeast strains carrying pGADT7-*rabs-5* (*C. elegans*) or pGADT7-*syn-16* (*C. elegans*) and pGBKT7 containing *vps-45* orthologs from indicated species, were streaked on a filter paper and subjected to the β-galactosidase assay. SYN-16 interacted with all Vps45 ortholog, however, RABS-5 interacted with only *C. elegans* and mouse mVps45. The results that the rescue activities for *vps-45* mutation were correlated with the binding activities to RABS-5 might suggest the importance of interaction between these proteins.