PEP1encodes a sorting receptor that functions in targeting mutiple vacuolar proteases, such as carboxypeptidase Y, proteinase A, and aminopeptidase Y, to the vacuole. Pep1p is a type I transmembrane protein that cycles between the late Golgi and the endosome. Pep1p and associated ligands are sorted from the Golgi to the endosome via clathrin-coated vesicles, while recycling Pep1p back to the late Golgi is mediated by the retromer complex. Proper Pep1p localization is also dependent on Vps8p and Vps13p. pep1 null mutants are defective in sorting and processing of vacuolar proteins, with vacuolar proteases being missorted to the cell surface. Overexpression of VTH2, which encodes a protein homologous to Pep1p, complements the pep1-delta missorting defects. Other proteins with similarity to Pep1p have been identified in fission yeast, rabbit, chicken, and man.