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Product Data Sheet

Inhibitors • Screening Libraries • Proteins

Vps29 Protein, Human

Cat. No.:	HY-P702054
Synonyms:	VPS29; Vacuolar protein sorting-associated protein 29; hVPS29; PEP11 homolog; Vesicle protein sorting 29
Species:	Human
Source:	E. coli
Accession:	Q9UBQ0 (M1-P182)
Gene ID:	51699
Molecular Weight:	

PROPERTIES	
Appearance	Solution.
Formulation	Supplied as a 0.22 μm filtered solution of 50 mM Tris-HCl, pH7.5, 200 mM NaCl, 20% glycerol.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	Please use rapid thawing with running water to thaw the protein.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background	Vps29 acts as a pivotal component of the retromer cargo-selective complex (CSC), playing a crucial role in preventing the missorting of selected transmembrane cargo proteins into the lysosomal degradation pathway. The CSC, acting as a recruitment hub, coordinates the retrograde transport of cargo proteins from endosomes to the trans-Golgi network (TGN) through distinct retromer pathways mediated by SNX-BAR, SNX3, and SNX27 retromer complexes. Vps29 is integral to the regulation of transcytosis, exemplified by its involvement in the retrieval and recycling of the polymeric immunoglobulin receptor (plgR-plgA). Additionally, Vps29 is a key component of the retriever complex, which functions independently of retromer in retrieving and recycling diverse cargos, including integrin alpha-5/beta-1 (ITGA5:ITGB1) and NxxY-motif-containing cargo proteins. The retriever complex's recruitment to endosomal membranes involves CCC and WASH complexes. Vps29 is implicated in GLUT1 endosome-to-plasma membrane trafficking, dependent on its association with ANKRD27. Notably, in the context of microbial infection, the retromer CSC mediates the exit of human papillomavirus from early endosomes and facilitates delivery to the Golgi apparatus.

Caution: Product has not been fully validated for medical applications. For research use only.

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