Recombinant VPS18 protein (His tag)

Catalog Number	543787
Synonyms	hVPS18
Species	Human
Expression System	E. coli
Accession	Q9P253
Molecular Weight	Predictes a molecular mass of 20.92 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 22 kDa band.

Product Information

Sequence Region	803-973
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 803-973 aa (Q9P253) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant hVPS18 Fragment (803-973) is a highly stable and soluble protein segment derived from human Vacuolar protein sorting-associated protein 18 homolog. This fragment is ideal for structural studies and biochemical assays, offering researchers a reliable tool to investigate vesicle-mediated trafficking mechanisms. The full-length hVPS18 protein plays a critical role in vesicle-mediated protein trafficking to lysosomal compartments, including endocytic membrane transport and autophagic pathways. It functions as a core component of the HOPS and CORVET endosomal tethering complexes, facilitating Rab5-to-Rab7 endosome conversion and SNARE-mediated membrane fusion. These complexes regulate late endocytic, phagocytic, and autophagic traffic toward lysosomes, with the CORVET complex acting as a Rab5 effector in early endosome fusion. hVPS18 is localized to late endosome membranes, lysosome membranes, early endosomes, autophagosomes, and clathrin-coated vesicles as a peripheral membrane protein on the cytoplasmic side, and it is essential for fusion events in endosomes and autophagosomes with lysosomes, as well as in dendrite development of Purkinje cells.