Recombinant VPS53 protein (His tag)

Catalog Number	540482
Species	Human
Expression System	E. coli
Accession	Q5VIR6
Molecular Weight	Predictes a molecular mass of 44.33 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 44 kDa band.

Product Information

Sequence Region	415-794
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 415-794 aa (Q5VIR6) 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 Human VPS53 Fragment (aa 415-794) is a high-quality, stable protein fragment derived from the Vacuolar protein sorting-associated protein 53 homolog. This 380-amino acid segment is engineered for optimal solubility and stability, making it an ideal tool for structural studies, biochemical assays, and research into intracellular trafficking mechanisms. The full-length Vacuolar protein sorting-associated protein 53 homolog (VPS53) is a crucial component of both the GARP and EARP complexes, playing essential roles in intracellular membrane trafficking. As part of the GARP complex, VPS53 facilitates retrograde transport from early and late endosomes to the trans-Golgi network, maintaining the cycling of mannose 6-phosphate receptors necessary for proper lysosomal sorting of acid hydrolases. Additionally, within the EARP complex, VPS53 contributes to endocytic recycling by promoting the return of internalized transferrin receptor to the plasma membrane from Rab4-positive endosomes. The protein localizes to both the trans-Golgi network membrane and endosomal membranes, highlighting its central role in maintaining cellular trafficking homeostasis. This recombinant fragment represents a stable, soluble unit specifically selected for experimental applications in studying these fundamental biological processes.