Recombinant VPP2 protein (His tag)

Catalog Number	546317
Synonyms	V-ATPase 116 kDa subunit a 2; Lysosomal H(+)-transporting ATPase V0 subunit a 2; TJ6; Vacuolar proton translocating ATPase 116 kDa subunit a isoform 2
Species	Human
Expression System	E. coli
Accession	Q9Y487
Molecular Weight	Predictes a molecular mass of 27.21 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 28 kDa band.

Product Information

Sequence Region	173-393
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 173-393 aa (Q9Y487) 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	This recombinant protein product features a stable and soluble fragment (residues 173-393) of the human V-type proton ATPase 116 kDa subunit a 2 (ATP6V0A2), a key component of the vacuolar H+-ATPase complex. This fragment is ideal for structural studies, biochemical assays, and functional investigations into proton transport mechanisms. The full-length V-type proton ATPase 116 kDa subunit a 2 is a multi-pass membrane protein that forms part of the V0 complex of the vacuolar H+-ATPase (V-ATPase). This enzyme is essential for acidifying intracellular compartments, such as endosomes and lysosomes, and in some cell types, it localizes to the plasma membrane to regulate extracellular pH. The protein plays a critical role in endosomal pH sensing, maintaining Golgi functions (e.g., glycosylation maturation), and under aerobic conditions, it contributes to intracellular iron homeostasis by influencing HIF1A degradation via Fe2+ prolyl hydroxylase activity. It is primarily located in the cell membrane and endosome membrane, highlighting its importance in cellular pH regulation and organelle function.