Recombinant VATD protein (His tag)

Catalog Number	548600
Synonyms	V-ATPase subunit D; V-ATPase 28 kDa accessory protein; Vacuolar proton pump subunit D
Species	Human
Expression System	E. coli
Accession	Q9Y5K8
Molecular Weight	Predictes a molecular mass of 29.92 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 32 kDa band.

Product Information

Sequence Region	1-247
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 1-247 aa (Q9Y5K8) 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 V-type proton ATPase subunit D (ATP6V1D) fragment (amino acids 1-247) - a highly stable and soluble protein unit ideal for structural studies and biochemical characterization of this essential V-ATPase complex component involved in cellular pH regulation and cilium biogenesis. V-type proton ATPase subunit D is a crucial component of the V1 complex of vacuolar(H+)-ATPase (V-ATPase), a multisubunit enzyme responsible for acidifying and maintaining the pH of intracellular compartments. In some cell types, V-ATPase localizes to the plasma membrane where it acidifies the extracellular environment. This subunit plays a significant role in cilium biogenesis through regulation of protein transport and localization to the cilium. The protein localizes to membranes, cytoplasmic vesicles, centrosomes, and the base of cilia, with specific presence in clathrin-coated vesicle membranes and microtubule organizing centers. Its localization to centrosomes and ciliary bases underscores its importance in cellular organization and specialized cellular structures.