Recombinant AT8A2 protein (His tag)

Catalog Number	548358
Synonyms	ATPase class I type 8A member 2; ML-1; P4-ATPase flippase complex alpha subunit ATP8A2
Species	Human
Expression System	E. coli
Accession	Q9NTI2
Molecular Weight	Predictes a molecular mass of 21.31 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 21 kDa band.

Product Information

Sequence Region	141-316
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 141-316 aa (Q9NTI2) 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 ATP8A2 Protein Fragment (residues 141-316) is a high-purity, stable, and soluble unit derived from Phospholipid-transporting ATPase IB (ATP8A2), designed for structural and biochemical studies. This fragment enables researchers to investigate the mechanisms of aminophospholipid transport and membrane asymmetry without the complexities of the full-length transmembrane protein. Phospholipid-transporting ATPase IB (ATP8A2) is a P4-ATPase flippase that catalyzes ATP hydrolysis to transport aminophospholipids like phosphatidylserine and phosphatidylethanolamine from the outer to inner membrane leaflet, maintaining phospholipid asymmetry. This activity is critical for vesicle formation, neurite outgrowth, and photoreceptor and spiral ganglion cell survival, with implications in vision and auditory function. The protein localizes to Golgi, endosome, plasma, and photoreceptor membranes, and its dysfunction is linked to neurological and sensory disorders. The recombinant fragment (141-316) represents a computationally optimized soluble region, facilitating in vitro analysis of ATP8A2's functional domains.