Recombinant AP1S2 protein (His tag)

Catalog Number	542432
Synonyms	Adaptor protein complex AP-1 subunit sigma-1B; Adaptor-related protein complex 1 subunit sigma-1B; Clathrin assembly protein complex 1 sigma-1B small chain; Golgi adaptor HA1/AP1 adaptin sigma-1B subunit; Sigma 1B subunit of AP-1 clathrin; Sigma-adaptin 1B; Sigma1B-adaptin
Species	Human
Expression System	E. coli
Accession	P56377
Molecular Weight	Predictes a molecular mass of 20.27 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 22 kDa band.

Product Information

Sequence Region	1-157
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 1-157 aa (P56377) 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 AP-1 complex subunit sigma-2 (AP1S2) fragment (residues 1-157) from Homo sapiens, engineered for stability and solubility. This fragment is ideal for investigating clathrin-mediated protein sorting mechanisms in Golgi and endosomal pathways, supporting structural and functional studies in cellular trafficking. AP-1 complex subunit sigma-2 is a key component of the clathrin-associated adaptor protein complex 1 (AP-1), which facilitates protein sorting at the late-Golgi/trans-Golgi network (TGN) and endosomes. The AP complexes recruit clathrin to membranes and recognize sorting signals in transmembrane cargo molecules, enabling vesicle formation and intracellular transport. The full-length protein localizes to the Golgi apparatus, cytoplasmic vesicle membranes (as a peripheral membrane protein on the cytoplasmic side), and clathrin-coated pits, where it forms part of the coat surrounding Golgi-derived vesicles. This fragment (residues 1-157) represents a stable, soluble unit selected for structural and biochemical analyses, aiding in the exploration of AP-1's role in cellular organization and trafficking pathways.