Recombinant AP2B1 protein (His tag)

Catalog Number	542482
Synonyms	AP105B; Adaptor protein complex AP-2 subunit beta; Adaptor-related protein complex 2 subunit beta; Beta-2-adaptin; Beta-adaptin; Clathrin assembly protein complex 2 beta large chain; Plasma membrane adaptor HA2/AP2 adaptin beta subunit
Species	Human
Expression System	E. coli
Accession	P63010
Molecular Weight	Predictes a molecular mass of 28.00 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 28 kDa band.

Product Information

Sequence Region	706-937
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 706-937 aa (P63010) 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-2 complex subunit beta (AP105B) fragment (residues 706-937), a highly stable and soluble protein unit derived from human AP2B1. This fragment is optimized for structural and biochemical studies, offering researchers a reliable tool to investigate clathrin-mediated endocytosis and adaptor protein complex functions. The full-length AP-2 complex subunit beta is a critical component of the adaptor protein complex 2 (AP-2), which functions in clathrin-dependent endocytosis by mediating cargo selection and vesicle formation at the plasma membrane. It recognizes specific endocytosis signal motifs (Y-X-X-Φ and [ED]-X-X-X-L-[LI]) in transmembrane cargo proteins and serves as a scaffolding platform for clathrin assembly and endocytic accessory proteins through its C-terminal appendage domain. AP-2 is localized to coated pits on the cell membrane and plays a role in synaptic vesicle recycling and ADAM10 endocytosis during neuronal plasticity. The complex disengages from endocytosis sites prior to vesicle internalization, highlighting its dynamic regulatory role in membrane trafficking pathways.