Recombinant AP2A2 protein (His tag)

Catalog Number	541903
Synonyms	100 kDa coated vesicle protein C; Adaptor protein complex AP-2 subunit alpha-2; Adaptor-related protein complex 2 subunit alpha-2; Alpha-adaptin C; Alpha2-adaptin; Clathrin assembly protein complex 2 alpha-C large chain; Huntingtin yeast partner J; Huntingtin-interacting protein 9; HIP-9; Huntingtin-interacting protein J; Plasma membrane adaptor HA2/AP2 adaptin alpha C subunit
Species	Human
Expression System	E. coli
Accession	O94973
Molecular Weight	Predictes a molecular mass of 29.00 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 29 kDa band.

Product Information

Sequence Region	697-939
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 697-939 aa (O94973) 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 alpha-2 fragment (amino acids 697-939) from Homo sapiens, designed for structural and biochemical studies. This 243-amino acid fragment represents a stable, soluble region of the protein, ideal for investigating clathrin-mediated endocytosis mechanisms and adaptor protein complex functions. The full-length AP-2 complex subunit alpha-2 is a crucial 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 endocytic accessory proteins through its C-terminal appendage domain. Located at the cell membrane and coated pits, AP-2 facilitates receptor-mediated endocytosis and synaptic vesicle recycling, with implications in neuronal processes such as long-term potentiation. The recombinant fragment corresponds to a computationally selected region optimized for experimental analysis, excluding functional domains to ensure solubility and stability.