Recombinant COPD protein (His tag)

Catalog Number	547005
Synonyms	Archain; Delta-coat protein; Delta-COP
Species	Human
Expression System	E. coli
Accession	P48444
Molecular Weight	Predictes a molecular mass of 32.51 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 34 kDa band.

Product Information

Sequence Region	237-511
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 237-511 aa (P48444) 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 Coatomer subunit delta (Archain) fragment (amino acids 237-511) is a high-purity protein preparation ideal for investigating the functional roles of the MHD domain in COPI vesicle formation and intracellular protein transport mechanisms. Coatomer subunit delta (Delta-COP), encoded by the ARCN1 gene, is an essential component of the coatomer complex that mediates intracellular protein transport. This cytosolic protein complex binds to dilysine motifs and reversibly associates with Golgi non-clathrin-coated vesicles, facilitating biosynthetic protein transport from the ER through the Golgi apparatus to the trans Golgi network. The coatomer complex is crucial for vesicle budding from Golgi membranes and enables retrograde Golgi-to-ER transport of dilysine-tagged proteins. In mammalian systems, coatomer recruitment requires membrane-associated ADP-ribosylation factors (ARFs), and the complex also contributes to Golgi structural integrity, LDL receptor processing, activity regulation, and endocytic recycling. The protein localizes to the cytoplasm, Golgi apparatus membrane (cytoplasmic side), and COPI-coated vesicle membranes (cytoplasmic side), where it polymerizes on the cytoplasmic surface of Golgi-derived vesicles and buds.