Recombinant COPA protein (His tag)

Catalog Number	544698
Synonyms	Alpha-coat protein; Alpha-COP; HEP-COP; HEPCOP; Xenopsin-related peptide
Species	Human
Expression System	E. coli
Accession	P53621
Molecular Weight	Predictes a molecular mass of 37.01 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 37 kDa band.

Product Information

Sequence Region	914-1224
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 914-1224 aa (P53621) 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 Coatomer subunit alpha (Alpha-COP) fragment (amino acids 914-1224) is a high-purity, stable protein derived from Homo sapiens, designed for structural and biochemical studies. This fragment represents a soluble and functional unit of the full-length protein, which plays a critical role in intracellular vesicle transport and Golgi integrity, making it ideal for research on membrane trafficking mechanisms. Coatomer subunit alpha (Alpha-COP), encoded by the COPA gene in humans, is a key component of the coatomer complex, a cytosolic protein assembly that binds to dilysine motifs and associates reversibly with Golgi-derived, non-clathrin-coated vesicles. This complex mediates biosynthetic protein transport from the endoplasmic reticulum (ER) through the Golgi apparatus to the trans Golgi network, and is essential for retrograde transport of dilysine-tagged proteins from the Golgi back to the ER. In mammals, coatomer recruitment depends on ADP-ribosylation factors (ARFs) and influences Golgi structural integrity, as well as the processing and recycling of LDL receptors. Additionally, the full-length protein is cleaved to produce xenin, a peptide that stimulates exocrine pancreatic secretion, inhibits acid secretion, and modulates intestinal motility via interaction with neurotensin receptors. Subcellularly, Alpha-COP is localized to the cytoplasm, Golgi apparatus membrane (as a peripheral membrane protein on the cytoplasmic side), and COPI-coated vesicle membranes, highlighting its role in intracellular trafficking pathways.