Recombinant AP1M protein (His tag)

Catalog Number	530981
Synonyms	Clathrin assembly protein complex 1 mu-1-I medium chain; Clathrin coat assembly protein AP47; Clathrin coat-associated protein AP47; Golgi adaptor AP-1 47 kDa protein; HA1 47 kDa subunit; Mu1-I-adaptin; Uncoordinated protein 101
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	P35602
Gene ID	173121
Molecular Weight	Predictes a molecular mass of 49.89 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 51 kDa band.

Product Information

Sequence Region	1-422
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 1-422 aa (P35602) 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 mu-1-I (UniProt ID: P35602) from Caenorhabditis elegans, encompassing the full-length fragment (residues 1-422) including the complete MHD functional domain. This high-purity protein serves as an essential tool for studying clathrin-mediated vesicular trafficking and neuronal channel localization mechanisms. AP-1 complex subunit mu-1-I, encoded by the unc-101 gene in C. elegans, functions as a key component of adaptor complexes that link clathrin to receptors in coated vesicles. These clathrin-associated protein complexes selectively interact with cytoplasmic tails of membrane proteins, facilitating their concentration and transport. Research demonstrates its critical role in multiple developmental and behavioral processes, including negative regulation of vulval differentiation and dendritic localization of potassium channel kvs-4 in cholinergic motor neurons. The protein localizes primarily to the Golgi apparatus and clathrin-coated vesicle membranes, functioning as a peripheral membrane protein on the cytoplasmic side, with additional presence in dendritic cell projections where it mediates channel targeting.