



Recombinant Human AP-2 complex subunit mu (AP2M1)

Product Code	CSB-EP001872HUe0
Relevance	Component of the adaptor protein complex 2 (AP-2). Adaptor protein complexes function in protein transport via transport vesicles in different mbrane traffic pathways. Adaptor protein complexes are vesicle coat components and appear to be involved in cargo selection and vesicle formation. AP-2 is involved in clathrin-dependent endocytosis in which cargo proteins are incorporated into vesicles surrounded by clathrin (clathrin-coated vesicles, CCVs) which are destined for fusion with the early endosome. The clathrin lattice serves as a mechanical scaffold but is itself unable to bind directly to mbrane components. Clathrin-associated adaptor protein (AP) complexes which can bind directly to both the clathrin lattice and to the lipid and protein components of mbranes are considered to be the major clathrin adaptors contributing the CCV formation. AP-2 also serves as a cargo receptor to selectively sort the mbrane proteins involved in receptor-mediated endocytosis. AP-2 ses to play a role in the recycling of synaptic vesicle mbranes from the presynaptic surface. AP-2 recognizes Y-X-X-[FILMV] (Y-X-X-Phi) and [ED]-X-X-X-L-[LI] endocytosis signal motifs within the cytosolic tails of transmembrane cargo molecules. AP-2 may also play a role in maintaining normal post-endocytic trafficking through the ARF6-regulated, non-clathrin pathway. The AP-2 mu subunit binds to transmembrane cargo proteins; it recognizes the Y-X-X-Phi motifs. The surface region interacting with to the Y-X-X-Phi motif is inaccessible in cytosolic AP-2, but becomes accessible through a conformational change following phosphorylation of AP-2 mu subunit at 'Tyr-156' in mbrane-associated AP-2. The mbrane-specific phosphorylation event appears to involve assbled clathrin which activates the AP-2 mu kinase AAK1 . Plays a role in endocytosis of frizzled family mbers upon Wnt signaling .
Abbreviation	Recombinant Human AP2M1 protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	Q96CW1
Alias	AP-2 mu chain;Adaptin-mu2Adaptor protein complex AP-2 subunit muAdaptor-related protein complex 2 subunit muClathrin assembly protein complex 2 mu medium chain;Clathrin coat assembly protein AP50Clathrin coat-associated protein AP50HA2 50 kDa subunitPlasma membrane adaptor AP-2 50 kDa protein
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.



Sequence

MIGGLFIYNHKGEVLISRVRDDIGRNAVD AFRVNVIHARQQVRSPVTNIARTSF
 FHVKRSNIWLA AVTKQNVNAAMVFEFLYKMCDVMAAYFGKISEENIKNNFVLIY
 ELLDEILDFGYPQNSETGALKTFITQQGIKSQHQTKEEQSQITSQVTGQIGWRR
 EGIKYRRNELFLDVLESVNLLMSPQQGVLSAHVSGRVVMKSYLSGMPECKFG
 MNDKIVIEKQKGTADETSKSGKQSI AIDDC TFHQCVRLSKFDSERSISFIPPDG
 EFELMRYRTTKDIILPFRVIPLVREVGRTKLEV KVVIKSNFKPSLLAQKIEVRIPTP
 LNTSGVQVICMKGKAKYKASENAIVWKIKRMAGMKESQISAEIELLPTNDKKKW
 ARPPISMNFEVVPFAPSGLKVRYLKVFEPKLNYS DHDVIKWVRYIGRSGIYETRC

Research Area Transport

Source E.coli

Target Names AP2M1

Expression Region 1-435aa

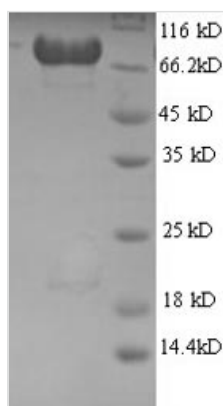
Notes Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

Tag Info N-terminal GST-tagged

Mol. Weight 76.7kDa

Protein Length Full Length

Image



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Reconstitution We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.