

Recombinant human AP-2 complex subunit mu protein

Catalog No: #AP71673

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Package Size: #AP71673-1 20ug #AP71673-2 100ug

Description

Product Name	Recombinant human AP-2 complex subunit mu protein
Brief Description	Recombinant Protein
Host Species	E.coli
Purification	Greater than 90% as determined by SDS-PAGE.
Immunogen Description	Expression Region:1-435aaSequence Info:Full Length
Other Names	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 50KDA subunitPlasma membrane adaptor AP-2 50KDA protein
Accession No.	Q96CW1
Uniprot	Q96CW1
GeneID	1173;
Calculated MW	76.7 kDa
Tag Info	N-terminal GST-tagged
Target Sequence	MIGGLFIYNHKGVELISRVRDDIGRNAVDVAFRVNVIHARQQVRSVPTNIARTSFFHVKRSNIWLAAVTKQNVN AAMVFEFLYKMCVMAAYFGKISEENIKNNFVLIYELLDEILDFGYPQNSETGALKTFITQQGIKSQHQTKEEQS QITSQVTGQIGWRREGIKYRRNELFDVLESVLLMSPQGQVLSAHVSGRVVMKSYLSGMPECKFGMNDKIVI EKQKGTADETSKSGKQSIADDCTFHQCVRLSKFDSERSISFIPPDGEFELMRYRTTKDILPFRVIPLVREVG RTKLEVKVVIKSNFKPSELLAQKIEVRIPTPLNTSGVQVICMKGKAKYKASENAIVWKIKRMAGMKESQISAEIELL PTNDKKKWARPPISMNFEVFPFAPSGLKVRYLKVFEPLNYSDDHVKWVRYIGRSGIYETRC
Formulation	Tris-based buffer50% glycerol
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.Notes:Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

Background

Component of the adaptor protein complex 2 (AP-2). Adaptor protein complexes function in protein transport via transport vesicles in different membrane 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 membrane components. Clathrin-associated adaptor protein (AP) complexes which can bind directly to both the clathrin lattice and to the lipid and protein components of membranes are considered to be the major clathrin adaptors contributing the CCV formation. AP-2 also serves as a cargo receptor to selectively sort the membrane proteins involved in receptor-mediated endocytosis. AP-2 seems to play a role in the recycling of synaptic vesicle membranes 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 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 membrane-associated AP-2. The membrane-specific phosphorylation event appears to involve assembled clathrin which activates the AP-2 mu kinase AAK1. Plays a role in endocytosis of frizzled family members upon Wnt signaling.

References

"The DNA sequence, annotation and analysis of human chromosome 3." Muzny D.M., Scherer S.E., Kaul R., Wang J., Yu J., Sudbrak R., Buhay C.J., Chen R., Cree A., Ding Y., Dugan-Rocha S., Gill R., Gunaratne P., Harris R.A., Hawes A.C., Hernandez J., Hodgson A.V., Hume J., Gibbs R.A. *Nature* 440:1194-1198(2006) Research Topic: Transport

Note: This product is for in vitro research use only