

Recombinant Human AP-2 complex subunit mu(AP2M1)

Catalog No: #AP70039

Package Size: #AP70039-1 20ug #AP70039-2 100ug #AP70039-3 1mg

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Description

Product Name	Recombinant Human AP-2 complex subunit mu(AP2M1)
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-mu2;Adaptor protein complex AP-2 subunit mu;Adaptor-related protein complex 2 subunit mu;Clathrin assembly protein complex 2 mu medium chain;Clathrin coat assembly protein AP50;Clathrin coat-associated protein AP50;HA2 50KDA subunit;Plasma membrane adaptor AP-2 50KDA protein
Accession No.	Q96CW1
Calculated MW	65.7 kDa
Tag Info	N-terminal 6xHis-SUMO-tagged
Target Sequence	MIGGLFIYNHKGVELISRVRDDIGRNAVDARVNVIHARQQVRSPVTNIARTSFFHVKRSNIWLAATKQNVN AAMVFEFLYKMCVMAAYFGKISEENIKNNFVLIYELLDEILDFGYPQNSETGALKTFITQQGIKSQHQTKEEQS QITSQVTGQIGWRREGIKYRRNELFLDVLESVNLLMSPQGQVLSAHVSGRVVMKSYLSGMPECKFGMNDKIVI EKQKGKTADETSKSGKQSIADDCTFHQCVRLSKFDSERSISFIPPDGEFELMRYRTTKDIILPFRVIPLVREVG RTKLEVKVVIKSNFKPSLLAQKIEVRIPTPLNTSGVQVICMKGKAKYKASENAIVWKIKRMAGMKESQISAEIELL PTNDKKKWARPPISMNFVFPFAPSGLVRYLKVFEPLKNYSDDHVDIKWVRYIGRSGIYETRC
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 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 transbrane 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 transbrane 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 .

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 and is not intended for use in humans or animals.