

Recombinant Human AP2M1 Protein (1-435 aa), His-tagged

Cat. No. AP2M1-1328H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human AP2M1 Protein (1-435 aa) is produced by Yeast expression system. This protein is fused with a 6xHis tag at the N-terminal. Research Area: Transport. Protein Description: Full Length.
Species	Human
Source	Yeast
ProteinLength	1-435 aa
Description	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

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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 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.

Form Tris-based buffer, 50% glycerol

Molecular Mass 51.7 kDa

AA Sequence

MIGGLFIYNHKGEVLISRVRDDIGRNAVD AFRVNVVIHARQQVRSPVTNIARTSFFHV
 KRSNIWLA AVTKQNVNAAMVFEFLYKMC DVMAAYFGKISEENIKNNFVLIYELLDEIL
 DFGYPQNSETGALKTFITQQGIKSQHQTKEEQSQITSQVTGQIGWRREGIKYRRNEL
 FLDVLESV NLLMSPQGQVLSAHVSGRVVMKSYLSGMPECKFGMNDKIVIEKQGKGT
 ADETSKSGKQSAIDDCTFHQCVRLSKFDSERSISFIPPDGEFELMRYRTTKDIILPFR
 VIPLVREVGRTKLEVKVVIKSNFKPSLLAQKIEVRIPTPLNTSGVQVICMKGKAKYKAS
 ENAIVWKIKRMAGMKESQISAEIELLPTNDKKKWARPPISMNFEVVPFAPSGLKVRYLK
 VFEPKLNYS DHDVIKWVRYIGRSGIYETRC

Purity > 90% as determined by SDS-PAGE.

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

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

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is 6 months at -20 centigrade/-80 centigrade. The shelf life of lyophilized form is 12 months at -20 centigrade/-80 centigrade.

Concentration

A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.

GENE INFORMATION

Gene Name AP2M1 adaptor-related protein complex 2, mu 1 subunit [Homo sapiens]

Official Symbol AP2M1

Synonyms AP2M1; CLAPM1; AP50; mu subunit; medium 1;

Gene ID 1173

mRNA Refseq NM_001025205

Protein Refseq NP_001020376

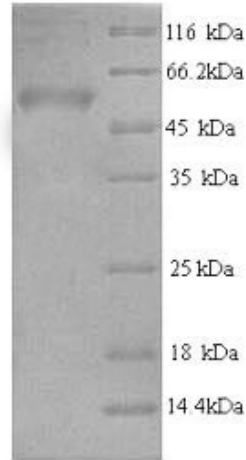
MIM 601024

UniProt ID Q96CW1

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

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