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Rabbit Anti-AP2M1 antibody

SL11241R

Product Name:	AP2M1
Chinese Name:	接头相关蛋白复合体AP-2μ链1抗体
Alias:	Adaptin mu 1; Clathrin coat associated protein AP50; Adapter-related protein complex 2 mu subunit; Adaptin-mu2; Adaptor protein complex AP 2 subunit mu; Adaptor protein complex AP-2 subunit mu; Adaptor related protein complex 2 mu 1 subunit; AP 2 mu 2 chain; AP-2 complex subunit mu; AP-2 mu chain; Ap2m1; AP2M1_HUMAN; AP50; CLAPM1; Clathrin adaptor complex AP2 mu subunit; Clathrin assembly protein complex 2 medium chain; Clathrin associated/assembly/adaptor protein medium 1; Clathrin coat adaptor protein AP50; Clathrin coat assembly protein AP50; Clathrin coat-associated protein AP50; HA2 50 kDa subunit; mu2 antibody; Plasma membrane adaptor AP-2 50 kDa protein.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Cow,Rabbit,Sheep,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	50kDa
Cellular localization:	The cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human AP2M1:201-300/435
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 癈 for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20癈. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of

	antibody the antibody is stable for at least two weeks at 2-4 癈.
PubMed:	PubMed
Product Detail:	Adaptins are heterotetrameric subunits of adaptors, which are complexes involved in the formation of Clathrin-coated pits for vesicle-mediated endocytosis. Clathrin and its associated heterotetrameric protein complexes make up the main protein components of the coat surrounding the cytoplasmic face of coated vesicles. The Adaptin family, comprising a, b, and g classes, is also responsible for the transport of ligand-receptor complexes from plasma membranes and the trans-Golgi network to lysosomes. Two main types of adaptor proteins (APs), AP-1 and AP-2, are found in Clathrin-coated structures located at the Golgi complex and the plasma membrane of mammalian cells, respectively. Adaptor protein complex 2 (AP-2) is composed of two large Adaptins (a1A/AP2A1 and b1/AP2B1), a medium Adaptin (m2/AP-2m1) and a small Adaptin (s2 long/AP2S1). AP-2m1, a 435 amino acid protein, links Clathrin to receptors in coated vesicles. **Function:** 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 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 (By similarity). Plays a role in endocytosis of frizzled family members upon Wnt signaling (By similarity). **Subunit:** Adaptor protein complex 2 (AP-2) is a heterotetramer composed of two large adaptins (alpha-type subunit AP2A1 or AP2A2 and beta-type subunit AP2B1), a medium adaptin (mu-type subunit AP2M1) and a small adaptin (sigma-type subunit AP2S1). Interacts with ATP6V1H and MEGF10. Interacts with EGFR. Interacts with F2R.

Interacts with PIP5K1C; tyrosine phosphorylation of PIP5K1C weakens the interaction (By similarity). Interacts with KIAA0319; required for clathrin-mediated endocytosis of KIAA0319. Interacts with DVL2 (via DEP domain) (By similarity).

Subcellular Location:
Cell membrane. Membrane; coated pit. AP-2 appears to be excluded from internalizing CCVs and to disengage from sites of endocytosis seconds before internalization of the nascent CCV.

Similarity:
Belongs to the adaptor complexes medium subunit family.
Contains 1 MHD (mu homology) domain.

SWISS:
Q96CW1

Gene ID:
1173

Database links:

Entrez Gene: 1173Human

Entrez Gene: 11773Mouse

Entrez Gene: 116563Rat

Omim: 601024Human

SwissProt: Q96CW1Human

SwissProt: P84091Mouse

SwissProt: P84092Rat

Unigene: 518460Human

Unigene: 18946Mouse

Unigene: 3172Rat

Important Note:
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.