

Rabbit AP2M1 Polyclonal Antibody | anti-AP2M1 antibody

Phospho-AP2M1 (Thr156) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329923	Rabbit	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (100%), Xenopus (100%)	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

AP2M1; Polyclonal Antibody; Phospho-AP2M1 (Thr156) Antibody; Adapter-related protein complex 2 mu subunit; Adaptin mu 1; 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; Clathrin coat-associated protein AP50; HA2 50kDa subunit; mu2; Plasma membrane adaptor AP-2 50kDa protein; anti-AP2M1 antibody

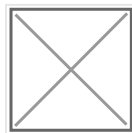
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (100%), Xenopus (100%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-AP2M1 (Thr156) Antibody detects endogenous levels of AP2M1 only when phosphorylated at Thr156. Tissue Specificity: Expressed in the brain (at protein level).
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-AP2M1 antibody	ELISA (Peptide ELISA), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human AP2M1 around the phosphorylation site of Thr156.
Conjugation	Unconjugated
Fragment	Fab fragment
Subunit Structure	Adapter 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) (By similarity). Interacts with ATP6V1H and MEGF10. Interacts with EGFR and TTGN1 (By similarity). 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). Interacts with KCNQ1; mediates estrogen-induced internalization via clathrin-coated vesicles. Interacts with P2RX4 (via internalization motif) (By similarity). Together with AP2A1 or AP2A2 and AP2B1, it interacts with ADAM10; this interaction facilitates ADAM10 endocytosis from the plasma membrane during long-term potentiation in hippocampal neurons.
Similarity	Belongs to the adaptor complexes medium subunit family.
Subcellular Location	Cell membrane. Membrane>Coated pit>Peripheral membrane protein>Cytoplasmic side. Note: AP-2 appears to be excluded from internalizing CCVs and to disengage from sites of endocytosis seconds before internalization of the nascent CCV.

Preparation and Storage

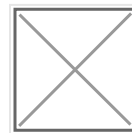
Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IHC (Immunohistochemistry)

Staining Mouse brain tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



WB (Western Blot)

Western blot analysis of AP-2mu (Phospho-Thr156) using HepG2 whole cell lysates. -/+ means absence or presence of N peptide(1/4 non-phospho peptide) and P peptide(phospho peptide).

ADDITIONAL INFORMATION

Related Product Information for anti-AP2M1 antibody

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. During long-term potentiation in hippocampal neurons, AP-2 is responsible for the endocytosis of ADAM10. 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).

NCBI AND UNIPROT INFORMATION

NCBI GI #	51316978
NCBI GeneID	1173
UniProt Accession #	Q96CW1; P20172; P53679; A6NE12; D3DNT1
Molecular Weight	435
NCBI Official Full Name	AP-2 complex subunit mu
NCBI Official Synonym Full Names	adaptor-related protein complex 2, mu 1 subunit
NCBI Official Symbol	AP2M1
NCBI Official Synonym Symbols	mu2; AP50; CLAPM1
NCBI Protein Information	AP-2 complex subunit mu; adaptin-mu2; AP-2 mu chain; AP-2 mu 2 chain; HA2 50 kDA subunit; clathrin coat adaptor protein AP50; clathrin coat assembly protein AP50; clathrin coat-associated protein AP50; adaptor protein complex AP-2 subunit mu; clathrin ada
UniProt Protein Name	AP-2 complex subunit mu
UniProt Gene Name	AP2M1
UniProt Synonym Gene Names	CLAPM1; KIAA0109

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/ap2m1-antibody-peptide-elisa-immunohistochemistry-western-blot-elisa/329923>