

AP2M1 Polyclonal Antibody

(Catalog # A53865)

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. During long-term potentiation in hippocampal neurons, AP-2 is responsible for the endocytosis of ADAM10 (PubMed:23676497). 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 (By similarity). Plays a role in endocytosis of frizzled family members upon Wnt signaling (By similarity).

Description

AP2M1 Polyclonal Antibody. Unconjugated. Raised in: Rabbit.

Formulation

Liquid. 0.03% Proclin 300, 50% Glycerol, 0.01M PBS, PH 7.4.

Specificity

Human

Isotype

IgG

Uniprot ID

Q96CW1

Purification

>95%, Protein G purified

Immunogen

Recombinant Human AP-2 complex subunit mu protein (1-435AA)

Storage

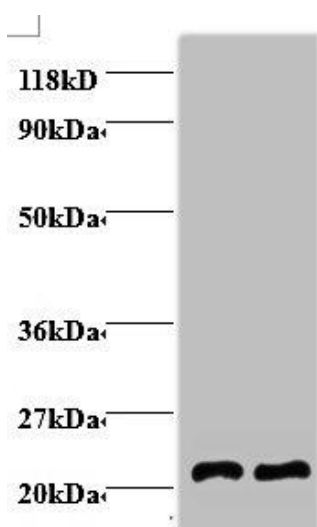
Shipped at 4°C. Upon delivery aliquot and store at -20°C (short-term) or -80°C (long-term). Avoid repeated freeze.

Alternative Names

CLAPM1, KIAA0109, AP2M1, AP-2 mu chain, Adapter-related protein complex 2 mu subunit, Adaptin-mu2, Adaptor protein complex AP-2 subunit mu, Clathrin assembly protein complex 2 medium chain, Clathrin coat assembly protein AP50, Clathrin coat-associated protein AP50, HA2 50 kDa subunit, Plasma membrane adaptor AP-2 50 kDa protein

Application

ELISA, WB, IHC; Recommended dilution: WB:1:1000-1:5000, IHC:1:20-1:200



WB All lanes: AP2M1 Polyclonal Antibody at 2ug/ml

Lane 1: EC109 whole cell lysate

Lane 2: 293T whole cell lysate

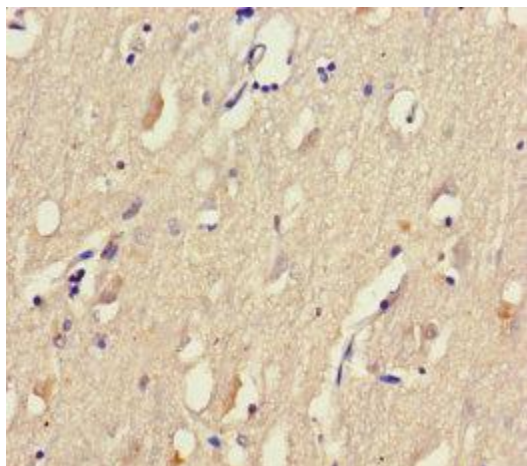
Secondary

Goat polyclonal to Rabbit IgG at 1/15000 dilution

Predicted band size: 48 kDa

Observed band size: 22kDa

Additional bands at: 88 kDa



Immunohistochemistry of paraffin-embedded human
brain tissue at dilution of 1:100