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AP2M1 Polyclonal Antibody

(Catalog #A54500)

Background
AP-2 is a 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 involved in cargo selection and formation. AP-2 is involved in clathrin-dependent endocytosis where 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 cannot bind directly to membrane components. Clathrin-associated adaptor protein (AP) complexes, which can bind directly to the clathrin lattice and the lipid and protein components of membranes, are considered the major clathrin adaptors contributing to CCV formation. AP-2 also serves as a cargo receptor to selectively sort the membrane proteins involved in receptor-mediated endocytosis. AP-2 plays a role in recycling 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 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.

Description
AP2M1 Polyclonal Antibody. Unconjugated. Raised in: Rabbit.

Formulation
0.03% Proclin 300. 50% Glycerol, 0.01M PBS, pH 7.4.

Specificity
Human, Mouse, Rat

Isotype
IgG

Uniprot ID
Q96CW1

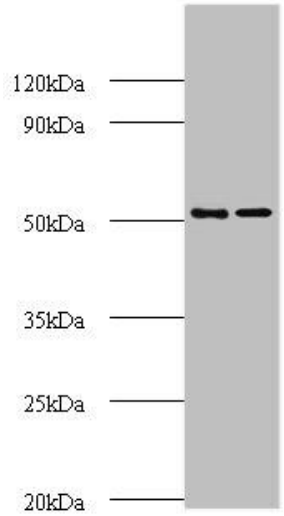
Purification
Protein G purified

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

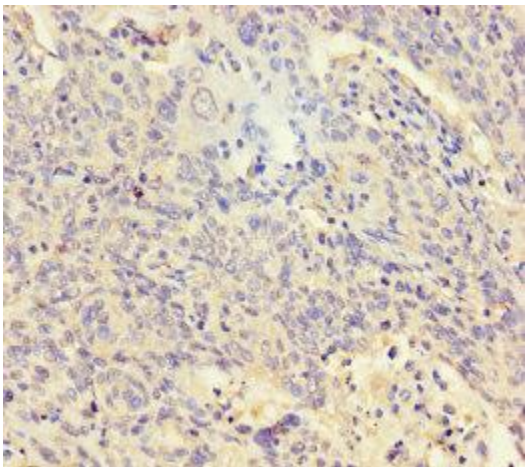
Storage
Shipped at 4°C. Upon delivery aliquot and store at -20°C (short-term) or -80°C (long-term). Avoid repeated freeze.

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

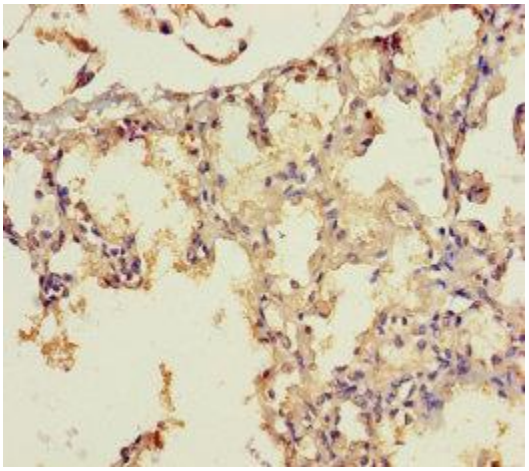
Application
ELISA, WB, IHC; Recommended dilution: WB:1:1000-1:5000, IHC:1:20-1:200



Western blot
All lanes: AP2M1 Polyclonal Antibody at 2ug/ml
Lane 1: mouse brain tissue
Lane 2: Rat brain tissue
Secondary
Goat polyclonal to Rabbit IgG at 1/10000 dilution
Predicted band size: 50kDa
Observed band size: 50kDa



Immunohistochemistry of paraffin-embedded human cervical cancer at dilution of 1:100



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

