

AP2A1 Antibody (C-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP13905b

Specification

AP2A1 Antibody (C-term) - Product Information

Application	IHC-P, WB,E
Primary Accession	O95782
Other Accession	P17426 , NP_570603.2 , NP_055018.2
Reactivity	Human
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	107546
Antigen Region	706-735

AP2A1 Antibody (C-term) - Additional Information

Gene ID 160

Other Names

AP-2 complex subunit alpha-1, 100 kDa coated vesicle protein A, Adaptor protein complex AP-2 subunit alpha-1, Adaptor-related protein complex 2 subunit alpha-1, Alpha-adaptin A, Alpha1-adaptin, Clathrin assembly protein complex 2 alpha-A large chain, Plasma membrane adaptor HA2/AP2 adaptin alpha A subunit, AP2A1, ADTAA, CLAPA1

Target/Specificity

This AP2A1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 706-735 amino acids from the C-terminal region of human AP2A1.

Dilution

IHC-P~~1:10~50

WB~~1:1000

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

AP2A1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

AP2A1 Antibody (C-term) - Protein Information

Name AP2A1

Synonyms ADTAA, CLAPA1

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. During long-term potentiation in hippocampal neurons, AP-2 is responsible for the endocytosis of ADAM10 (PubMed:[23676497](#)). The AP-2 alpha subunit binds polyphosphoinositide-containing lipids, positioning AP-2 on the membrane. The AP-2 alpha subunit acts via its C-terminal appendage domain as a scaffolding platform for endocytic accessory proteins. The AP-2 alpha and AP-2 sigma subunits are thought to contribute to the recognition of the [ED]-X-X-X-L-[LI] motif (By similarity).

Cellular 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

Tissue Location

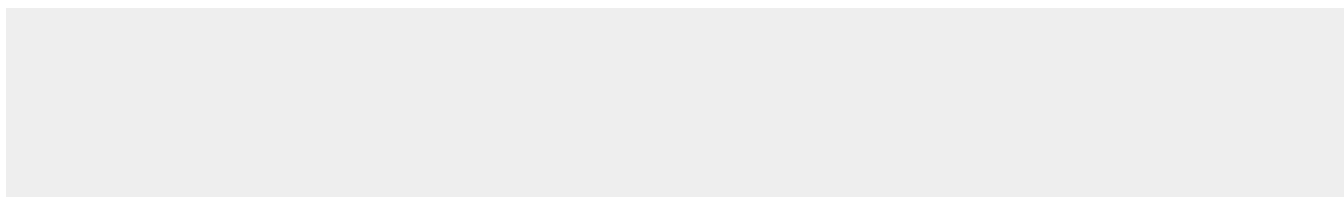
Expressed in the brain (at protein level) (PubMed:[23676497](#)). Isoform A: Expressed in forebrain, skeletal muscle, spinal cord, cerebellum, salivary gland, heart and colon. Isoform B: Widely expressed in tissues and also in breast cancer and in prostate carcinoma cells.

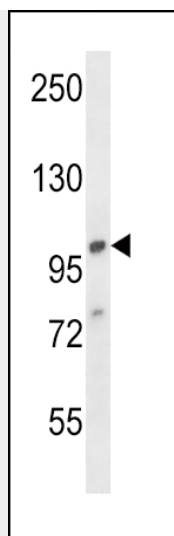
AP2A1 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

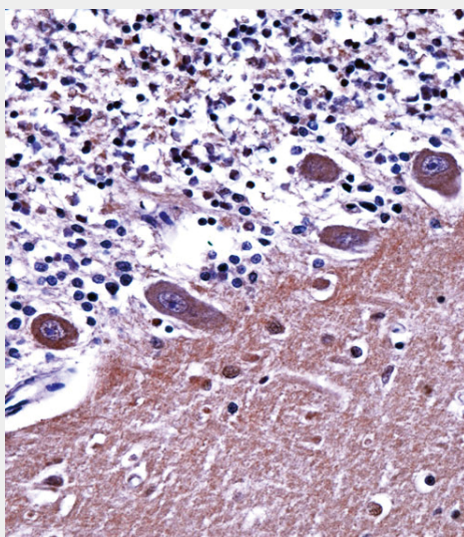
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

AP2A1 Antibody (C-term) - Images





AP2A1 Antibody (C-term) (Cat. #AP13905b) western blot analysis in 293 cell line lysates (35ug/lane). This demonstrates the AP2A1 antibody detected the AP2A1 protein (arrow).



AP2A1 Antibody (C-term) (AP13905b) immunohistochemistry analysis in formalin fixed and paraffin embedded human cerebellum tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of AP2A1 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

AP2A1 Antibody (C-term) - Background

This gene encodes the alpha 1 adaptin subunit of the adaptor protein 2 (AP-2) complex found in clathrin coated vesicles. The AP-2 complex is a heterotetramer consisting of two large adaptins (alpha or beta), a medium adaptin (mu), and a small adaptin (sigma). The complex is part of the protein coat on the cytoplasmic face of coated vesicles which links clathrin to receptors in vesicles. Alternative splicing of this gene results in two transcript variants encoding two different isoforms. A third transcript variant has been described, but its full length nature has not been determined.

AP2A1 Antibody (C-term) - References

Mitchell, R.S., et al. J. Virol. 82(16):7758-7767(2008)
Kitagawa, Y., et al. Virology 373(1):171-180(2008)
Stove, V., et al. J. Virol. 79(17):11422-11433(2005)
Lu, W., et al. Neuron 47(3):407-421(2005)
Pope, S.N., et al. J. Steroid Biochem. Mol. Biol. 94 (1-3), 203-208 (2005) :