

AP2B1 Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14961C

Specification

AP2B1 Antibody (Center) - Product Information

Application	WB,E
Primary Accession	P63010
Other Accession	P62944 , Q9DBG3 , P63009 , Q08DS7 , NP_001025177.1 , NP_001273.1
Reactivity	Human
Predicted	Bovine, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	104553
Antigen Region	517-546

AP2B1 Antibody (Center) - Additional Information

Gene ID 163

Other Names

AP-2 complex subunit beta, AP105B, Adaptor protein complex AP-2 subunit beta, Adaptor-related protein complex 2 subunit beta, Beta-2-adaptin, Beta-adaptin, Clathrin assembly protein complex 2 beta large chain, Plasma membrane adaptor HA2/AP2 adaptin beta subunit, AP2B1, ADTB2, CLAPB1

Target/Specificity

This AP2B1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 517-546 amino acids from the Central region of human AP2B1.

Dilution

WB~~1:1000

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

AP2B1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

AP2B1 Antibody (Center) - Protein Information

Name AP2B1**Synonyms** ADTB2, CLAPB1

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 beta subunit acts via its C-terminal appendage domain as a scaffolding platform for endocytic accessory proteins; at least some clathrin-associated sorting proteins (CLASPs) are recognized by their [DE]-X(1,2)-F-X-X-[FL]-X-X-X-R motif. The AP-2 beta subunit binds to clathrin heavy chain, promoting clathrin lattice assembly; clathrin displaces at least some CLASPs from AP2B1 which probably then can be positioned for further coat assembly.

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

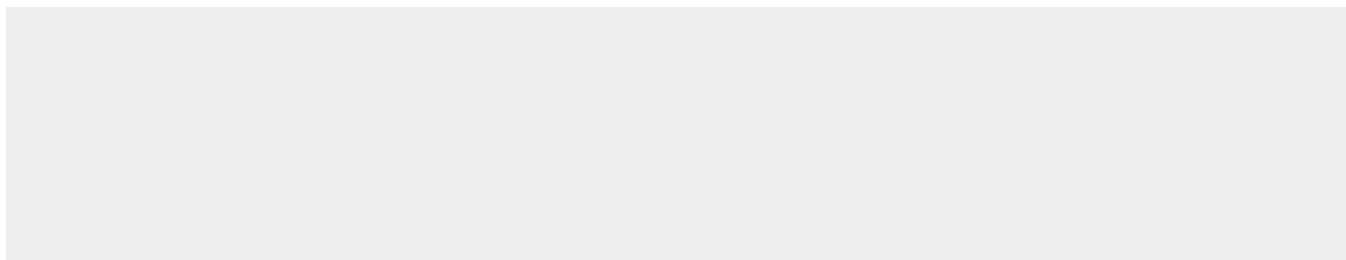
Tissue Location

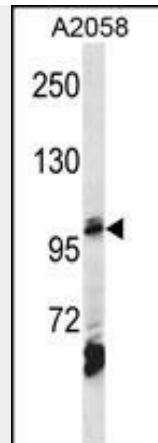
Expressed in the brain (at protein level).

AP2B1 Antibody (Center) - 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](#)

AP2B1 Antibody (Center) - Images



AP2B1 Antibody (Center) (Cat. #AP14961c) western blot analysis in A2058 cell line lysates (35ug/lane). This demonstrates the AP2B1 antibody detected the AP2B1 protein (arrow).

AP2B1 Antibody (Center) - Background

The protein encoded by this gene is one of two large chain components of the assembly protein complex 2, which serves to link clathrin to receptors in coated vesicles. The encoded protein is found on the cytoplasmic face of coated vesicles in the plasma membrane. Two transcript variants encoding different isoforms have been found for this gene.

AP2B1 Antibody (Center) - References

Kahlfeldt, N., et al. J. Biol. Chem. 285(4):2734-2749(2010)
Hood, F.E., et al. J. Cell. Sci. 122 (PT 13), 2185-2190 (2009) :
Grass, B., et al. Histopathology 54(7):873-879(2009)
Keyel, P.A., et al. Mol. Biol. Cell 19(12):5309-5326(2008)
Rikova, K., et al. Cell 131(6):1190-1203(2007)