

Anti-AP2B1 Picoband Antibody

Catalog # ABO10329

Product Information

Application	WB
Primary Accession	P63010
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for AP-2 complex subunit beta(AP2B1) detection. Tested with WB in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

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
Calculated MW	104553
Application Details	Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat
Subcellular Localization	Cell membrane . Membrane, coated pit ; Peripheral membrane protein ; Cytoplasmic side . AP-2 appears to be excluded from internalizing CCVs and to disengage from sites of endocytosis seconds before internalization of the nascent CCV.
Source	Eukaryota
Protein Name	AP-2 complex subunit beta
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	E. coli-derived human AP2B1 recombinant protein (Position: Q311-R522). Human AP2B1 shares 100% amino acid (aa) sequence identity with both mouse and rat AP2B1.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins.

Storage	At -20 °C for one year. After r ° Constitution, at 4 °C for one month. It ° Can also be aliquotted and stored frozen at -20 °C for a longer time.Avoid repeated freezing and thawing.
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Protein Information

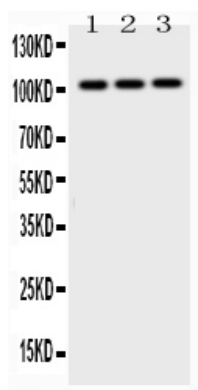
Name	AP2B1
Synonyms	ADTB2, CLAPB1
Function	Component of the adaptor protein complex 2 (AP-2). Adaptor protein complexes function in protein transport via transport vesicles in different membrane traffic pathways. Adaptor protein complexes are vesicle coat components and appear to be involved in cargo 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).

Background

AP-2 complex subunit beta is a protein that in humans is encoded by the AP2B1 gene. It is mapped to 17q12. 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.

Images

Western blot analysis of AP2B1 expression in rat testis



extract (lane 1), mouse brain extract (lane 2) and MCF-7 whole cell lysates (lane 3). AP2B1 at 104KD was detected using rabbit anti- AP2B1 Antigen Affinity purified polyclonal antibody (Catalog # ABO10329) at 0.5 μ g/mL. The blot was developed using chemiluminescence (ECL) method .

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.