abcam

Product datasheet

Anti-AP2B1 antibody ab205014

2 Images

Overview

Product name	Anti-AP2B1 antibody
Description	Rabbit polyclonal to AP2B1
Host species	Rabbit
Tested applications	**Suitable for:** WB, IP
Species reactivity	**Reacts with:** Mouse, Human **Predicted to work with:** Rat, Sheep, Rabbit, Horse, Cow, Dog, Pig, Chimpanzee, Cynomolgus monkey, Rhesus monkey, Gorilla, Orangutan
Immunogen	Synthetic peptide within Human AP2B1 aa 550-650. The exact immunogen sequence used to generate this antibody is proprietary information. If additional detail on the immunogen is needed to determine the suitability of the antibody for your needs, please **contact** our Scientific Support team to discuss your requirements. NP_001273.1 Database link: **P63010** Run BLAST with Run BLAST with
Positive control	HeLa, 293T, Jurkat, TCMK1 and NIH 3T3 whole cell lysates.
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7 Preservative: 0.09% Sodium azide Constituent: 99% Tris citrate/phosphate pH 7-8

Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab205014 in the following tested applications.

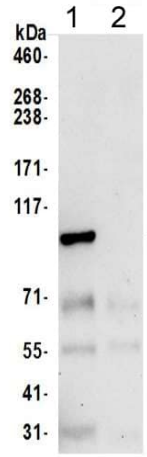
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/2000 - 1/10000. Predicted molecular weight: 105 kDa.
IP		Use at 2-10 µg/mg of lysate.

Target

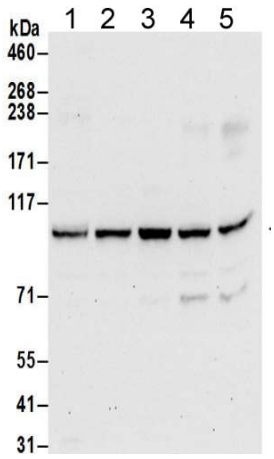
Function	Component of the adaptor protein complex 2 (AP-2). Adaptor protein complexes function in protein transport via transport vesicles in different membrane traffic pathways. Adaptor protein complexes are vesicle coat components and appear to be involved in cargo selection and vesicle formation. AP-2 is involved in clathrin-dependent endocytosis in which cargo proteins are incorporated into vesicles surrrounded 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. 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.
Sequence similarities	Belongs to the adaptor complexes large subunit family.
Post-translational modifications	Phosphorylation at Tyr-737 by SRC occurs at the plasma membrane in clathrin-coated vesicles (CCVs).
Cellular localization	Cell membrane. Membrane > coated pit. AP-2 appears to be excluded from internalizing CCVs and to disengage from sites of endocytosis seconds before internalization of the nascent CCV.

Images



Immunoprecipitation - Anti-AP2B1 antibody (ab205014)

Detection of AP2B1 in Immunoprecipitates of 293T whole cell lysates (1 mg for IP, 20% of IP loaded) using ab205014 at 6 µg/mg lysate for IP (Lane 1). For WB detection ab205014 was used at 1 µg/ml. Lane 2 represents control IgG IP. Detection: Chemiluminescence with an exposure time of 10 seconds. Lysate prepared using NETN lysis buffer.



Western blot - Anti-AP2B1 antibody (ab205014)

All lanes : Anti-AP2B1 antibody (ab205014) at 0.1 µg/ml

Lane 1 : HeLa whole cell lysate
Lane 2 : 293T whole cell lysate
Lane 3 : Jurkat whole cell lysate
Lane 4 : TCMK1 whole cell lysate
Lane 5 : NIH 3T3 whole cell lysate

Lysates/proteins at 50 µg per lane.

Developed using the ECL technique.

Predicted band size: 105 kDa

Exposure time: 30 seconds

Lysates prepared using NETN lysis buffer

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