abcam

Product datasheet

Anti-CHMP2B antibody ab226304

1 Abreviews 1 References 2 Images

Overview

Product name	Anti-CHMP2B antibody
Description	Rabbit polyclonal to CHMP2B
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-P
Species reactivity	**Reacts with:** Mouse, Human **Predicted to work with:** Chicken, Cow, Xenopus laevis, Orangutan, Xenopus tropicalis
Immunogen	Synthetic peptide within Human CHMP2B aa 163-213. The exact sequence is proprietary. (NP_054762.2). Database link: **Q9UQN3**
Positive control	WB: HeLa, HEK-293T, Jurkat, TCMK-1 and NIH/3T3 whole cell lysates. IHC-P: Human breast carcinoma tissue.
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: Tris citrate/phosphate pH 7 to 8
Purity	Immunogen affinity purified
Purification notes	ab226304 was affinity purified using an epitope specific to CHMP2B immobilized on solid

support.

Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab226304 in the following tested applications.

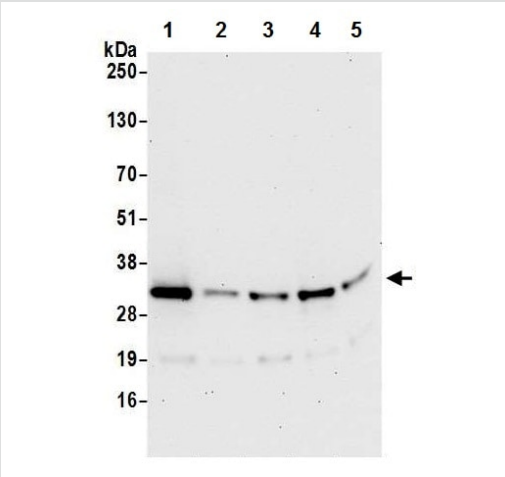
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000 - 1/5000. Predicted molecular weight: 24 kDa.
IHC-P		1/500 - 1/2000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Target

Function	Probable core component of the endosomal sorting required for transport complex III (ESCRT-III) which is involved in multivesicular bodies (MVBs) formation and sorting of endosomal cargo proteins into MVBs. MVBs contain intraluminal vesicles (ILVs) that are generated by invagination and scission from the limiting membrane of the endosome and mostly are delivered to lysosomes enabling degradation of membrane proteins, such as stimulated growth factor receptors, lysosomal enzymes and lipids. The MVB pathway appears to require the sequential function of ESCRT-O, -I,-II and -III complexes. ESCRT-III proteins mostly dissociate from the invaginating membrane before the ILV is released. The ESCRT machinery also functions in topologically equivalent membrane fission events, such as the terminal stages of cytokinesis and the budding of enveloped viruses (HIV-1 and other lentiviruses). ESCRT-III proteins are believed to mediate the necessary vesicle extrusion and/or membrane fission activities, possibly in conjunction with the AAA ATPase VPS4.
Tissue specificity	Widely expressed. Expressed in brain, heart, skeletal muscle, spleen, kidney, liver, small intestine, pancreas, lung, placenta and leukocytes. In brain, it is expressed in cerebellum, cerebral cortex, medulla, spinal chord, occipital lobe, frontal lobe, temporal lobe and putamen.
Involvement in disease	Defects in CHMP2B are the cause of frontotemporal dementia, chromosome 3-linked (FTD3) [MIM:600795]. FTD3 is characterized by an onset of dementia in the late 50's initially characterized by behavioral and personality changes including apathy, restlessness, disinhibition and hyperorality, progressing to stereotyped behaviors, non-fluent aphasia, mutism and dystonia, with a marked lack of insight. The brains of individuals with FTD3 have no distinctive neuropathological features. They show global cortical and central atrophy, but no beta-amyloid deposits.
Sequence similarities	Belongs to the SNF7 family.
Domain	The acidic C-terminus and the basic N-termminus are thought to render the protein in a closed, soluble and inactive conformation through an autoinhibitory intramolecular interaction. The open and active conformation, which enables membrane binding and oligomerization, is achieved by interaction with other cellular binding partners, probably including other ESCRT components.
Cellular localization	Cytoplasm > cytosol. Late endosome membrane.

Images



Western blot - Anti-CHMP2B antibody (ab226304)

All lanes : Anti-CHMP2B antibody (ab226304) at 0.1 µg/ml

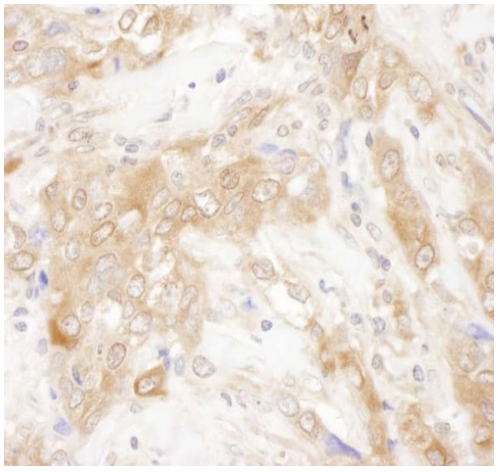
Lane 1 : HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate at 50 µg
Lane 2 : HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate at 20 µg
Lane 3 : Jurkat (human T cell leukemia cell line from peripheral blood) whole cell lysate at 50 µg
Lane 4 : TCMK-1 (mouse kidney epithelial cell line) whole cell lysate at 50 µg
Lane 5 : NIH/3T3 (mouse embryonic fibroblast cell line) whole cell lysate at 50 µg

Developed using the ECL technique.

Predicted band size: 24 kDa

Exposure time: 30 seconds

Cell lysates were prepared using NETN lysis buffer.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CHMP2B antibody (ab226304)

Formalin-fixed, paraffin-embedded human breast carcinoma tissue stained for CHMP2B using ab226304 at 1/1000 dilution in immunohistochemical analysis. Detection: DAB staining. Counterstain: Hematoxylin (blue).

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