abcam

Product datasheet

Anti-CHMP2B antibody ab33174

敲除验证

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概述

产品名称	Anti-CHMP2B抗体
描述	兔多克隆抗体to CHMP2B
宿主	Rabbit
经测试应用	**适用于:** WB, ICC/IF
种属反应性	**与反应:** Human **预测可用于:** Mouse, Chicken
免疫原	Synthetic peptide corresponding to Human CHMP2B aa 150 to the C-terminus (C terminal) conjugated to keyhole limpet haemocyanin. (Peptide available as **ab27782**)
阳性对照	ICC/IF: A431 cells
常规说明	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

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
存储溶液	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.

纯度	Immunogen affinity purified
克隆	**多克隆**
同种型	IgG

应用

The Abpromise guarantee **Abpromise™承诺保证使用**ab33174**于以下的**经测试应用

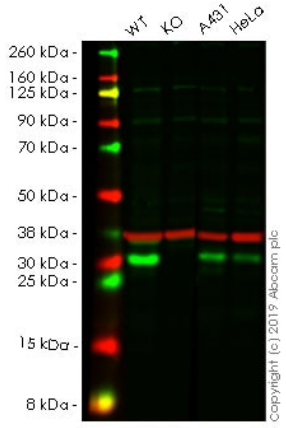
"应用说明"**部分 下显示的**仅为**推荐的起始稀释度**;实际**最佳的稀释度/浓度应由使用者检定。**

应用	Ab评论	说明
WB	★★★★☆ (1)	Use a concentration of 1 µg/ml. Predicted molecular weight: 24 kDa.
ICC/IF	★★★★☆ (1)	Use a concentration of 5 µg/ml.

靶标

功能	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.
组织特异性	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.
疾病相关	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.
序列相似性	Belongs to the SNF7 family.
结构域	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.
细胞定位	Cytoplasm > cytosol. Late endosome membrane.

图片



Western blot - Anti-CHMP2B antibody (ab33174)

All lanes : Anti-CHMP2B antibody (ab33174) at 1 µg/ml

Lane 1 : Wild-type A549 (Human lung carcinoma cell line) whole cell lysate
Lane 2 : CHMP2B knockout A549 (Human lung carcinoma cell line) whole cell lysate
Lane 3 : A-431 (Human epidermoid carcinoma cell line) whole cell lysate
Lane 4 : HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate

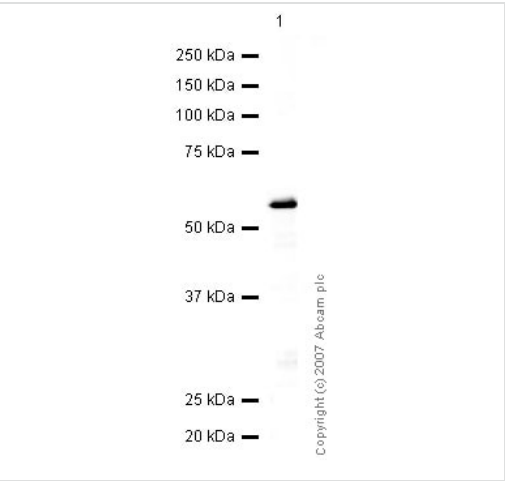
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 24 kDa

Lanes 1 - 4: Merged signal (red and green). Green - ab33174 observed at 30 kDa. Red - loading control, **ab8245**, observed at 37 kDa.

ab33174 was shown to recognize CHMP2B in wild-type A549 cells as signal was lost at the expected MW in CHMP2B knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and CHMP2B knockout samples were subjected to SDS-PAGE. The membrane was blocked with 3% Milk. Ab33174 and **ab8245** (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1 µg/ml and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed **ab216773** and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed **ab216776** secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-CHMP2B antibody (ab33174)

Anti-CHMP2B antibody (ab33174) at 1 µg/ml + Tagged recombinant CHMP2B protein at 0.1 µg

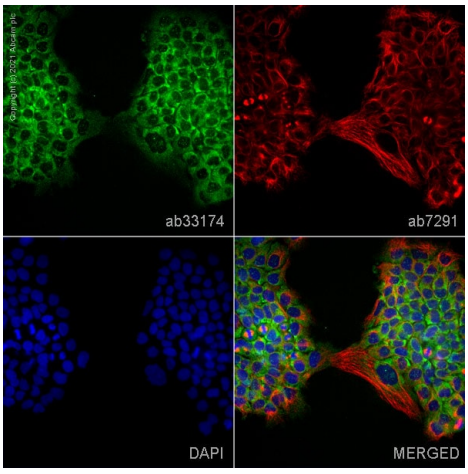
Secondary

IRDye 680 Conjugated Goat Anti-Rabbit IgG (H+L) at 1/10000 dilution

Performed under reducing conditions.

Predicted band size: 24 kDa
Observed band size: 55 kDa

Ab33174 was tested on the full length recombinant tagged CHMP2B protein which is predicted to run at 50 kDa.



Immunocytochemistry/ Immunofluorescence - Anti-CHMP2B antibody (ab33174)

ab33174 staining CHMP2B in A431 cells. The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% PBS-Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated overnight at 4°C with ab33174 at 5µg/ml and **ab7291**, Mouse monoclonal [DM1A] to alpha Tubulin - Loading Control. Cells were then incubated with **ab150081**, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 488), pre-adsorbed at 1/1000 dilution (shown in green) and **ab150120**, Goat polyclonal Secondary Antibody to Mouse IgG - H&L (Alexa Fluor® 594), pre-adsorbed at 1/1000 dilution (shown in pseudocolour red). Nuclear DNA was labelled with DAPI (shown in blue).

Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a maximum intensity projection of confocal sections is shown.

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