abcam

ab157208

Anti-CHMP2B antibody [EPR10807(B)]

Recombinant | RabMAb | KO Validated

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR10807(B)
Purification technique	Affinity purification Protein A
Concentration	0.138 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	1/100 - 1/250
Notes	For unpurified use at 1/250 - 1/500 dilution.

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

IP

Tested

Species	Human
Dilution info	1/20
Notes	For unpurified use at 1/10 - 1/100 dilution.

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000
Notes	For unpurified use at 1/10000 - 1/10000 dilution.

Species	Mouse
Dilution info	1/1000
Notes	For unpurified use at 1/10000 - 1/10000 dilution.

Species	Rat
Dilution info	1/1000
Notes	For unpurified use at 1/10000 - 1/10000 dilution.

IHC-P

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/20
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody. For unpurified use at 1/10 - 1/100 dilution.

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information CHMP2B

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.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

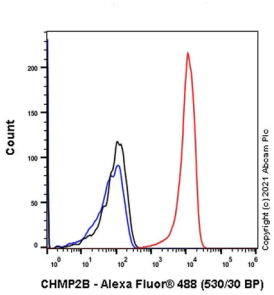
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

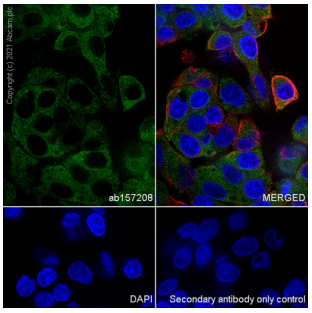
7 product images



Flow Cytometry (Intracellular) - Anti-CHMP2B antibody [EPR10807(B)] (ab157208)

CHMP2B Flow Cytometry (Intracellular) staining using rabbit Anti-CHMP2B antibody

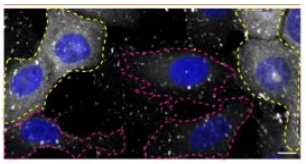
Flow Cytometry analysis of 293T (Human embryonic kidney epithelial cell) cells labelling CHMP2B with Purified ab157208 at 1:20 dilution (10 µg/ml) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) secondary antibody was used at 1:2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabelled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Immunocytochemistry/ Immunofluorescence - Anti-CHMP2B antibody [EPR10807(B)] (ab157208)

CHMP2B Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-CHMP2B antibody

Immunocytochemistry analysis of HepG2 (Human hepatocellular carcinoma epithelial cell) cells labeling CHMP2B with Purified ab157208 at 1:250 dilution (0.6 µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.

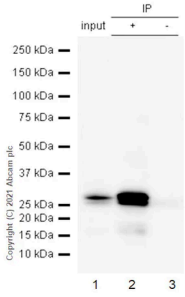


Immunocytochemistry/ Immunofluorescence - Anti-CHMP2B antibody [EPR10807(B)] (ab157208)

CHMP2B Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-CHMP2B antibody

ab157208 was shown to react with CHMP2B in wild-type U2OS cells in immunocytochemistry with loss of signal observed in a CHMP2B knockout cell line. Wild-type and knockout cells were mixed and pelleted at a 1:1 ratio on coverslips. The cells were fixed with 4% paraformaldehyde (15 min) then permeabilized with 0.1% Triton X-100 (10min) and then blocked with 1x PBS, 0.01% Triton X-100, 5% BSA, 5% NGS. The cells were then incubated with ab157208 at dilution overnight at 4°C followed by a further incubation at room temperature for 1h with a goat anti-rabbit secondary antibody to (Alexa Fluor® 555) at 0.5 µg/ml. Acquisition of the green (wild-type), red (antibody staining) and far-red (knockout) channels was performed. Representative grayscale images of the red channel are shown. Wild-type and knockout cells are outlined with yellow and magenta dashed line, respectively. Schematic representation of the mosaic strategy used is shown on the bottom-right panel. Image was acquired with a Zeiss(LSM-880).

This data was provided by YCharOS Inc., an open science company with the mission of characterizing commercially available antibody reagents for all human proteins. Abcam and YCharOS are working together to help address the reproducibility crisis by enabling the life science community to better evaluate commercially available antibodies.



Immunoprecipitation - Anti-CHMP2B antibody [EPR10807(B)] (ab157208)

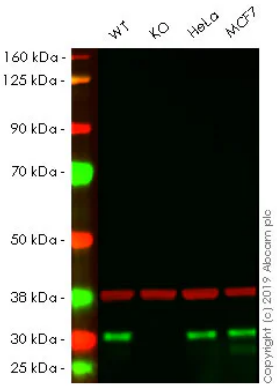
Purified ab157208 at 1:20 dilution (0.7µg) immunoprecipitating CHMP2B in 293T whole cell lysate.

Lane 1 (input): 293T (Human embryonic kidney epithelial cell) whole cell lysate 10µg.
Lane 2 (+): ab157208 + 293T whole cell lysate.
Lane 3 (-): Rabbit monoclonal IgG (ab172730) instead of ab157208 in 293T whole cell lysate.
VeriBlot for IP Detection Reagent (HRP)(ab131366) (1:1000 dilution) was used for Western blotting.

Blocking Buffer and concentration: 5% NFDM/TBST.
Diluting buffer and concentration: 5% NFDM/TBST.
Observed band size: 30 kDa
We are unsure about the nature of the 27kDa band. It may be isoform 2 of CHMP2B.

All lanes:
Immunoprecipitation - Anti-CHMP2B antibody [EPR10807(B)] (ab157208)

Predicted band size: 24 kDa



Western blot - Anti-CHMP2B antibody [EPR10807(B)] (ab157208)

CHMP2B Western blot staining using rabbit Anti-CHMP2B antibody

Lanes 1 - 4: Merged signal (red and green). Green - ab157208 observed at 45 kDa. Red - loading control, ab8245, observed at 38 kDa.
ab157208 was shown to specifically react with CHMP2B in wild-type A549 cells as signal was lost in CHMP2B knockout cells. Wild-type and CHMP2B knockout samples were subjected to SDS-PAGE. The membrane was blocked with 3% Milk. ab157208 and ab8245 (Mouse monoclonal [6C5] to GAPDH - Loading Control) were incubated overnight at 4°C at 1/1000 dilution and 1/1000 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.

All lanes:
Western blot - Anti-CHMP2B antibody [EPR10807(B)] (ab157208) at 1/1000 dilution

Lane 1:
Wild-type A549 whole cell lysate at 20 µg

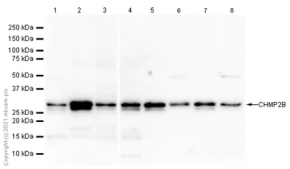
Lane 2:
Western blot - Human CHMP2B knockout A549 cell lysate (ab261683) at 20 µg

Lane 3:
HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate at 20 µg

Lane 4:
MCF7 (Human breast adenocarcinoma cell line) whole cell lysate at 20 µg

Performed under reducing conditions.

Predicted band size: 24 kDa



Western blot - Anti-CHMP2B antibody [EPR10807(B)] (ab157208)

CHMP2B Western blot staining using rabbit Anti-CHMP2B antibody

We are unsure about the nature of the 27kDa band. It may be isoform 2 of CHMP2B.
All lanes:
Western blot - Anti-CHMP2B antibody [EPR10807(B)] (ab157208) at 1/1000 dilution

Lane 1:
HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate at 20 µg

Lane 2:
MCF7 (Human breast adenocarcinoma epithelial cell) whole cell lysate at 20 µg

Lane 3:
A549 (Human lung carcinoma epithelial cell) whole cell lysate at 20 µg

Lane 4:
293T (Human embryonic kidney epithelial cell) whole cell lysate at 20 µg

Lane 5:
Mouse brain lysate at 20 µg

Lane 6:
Mouse heart lysate at 20 µg

Lane 7:

Rat brain lysate at 20 µg

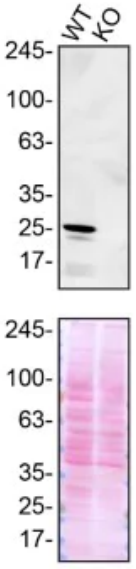
Lane 8:
Rat heart lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 24 kDa

Observed band size: 30 kDa



Western blot - Anti-CHMP2B antibody [EPR10807(B)] (ab157208)

ab157208 was shown to react with CHMP2B in wild-type U2OS cells in Western blot with loss of signal observed in a CHMP2B knockout cell line. Wild-type U2OS and CHMP2B knockout cell lysates were subjected to SDS-PAGE. Membranes were blocked in 5% milk in TBST for 1 hr before incubation with ab157208 overnight at 4 °C at a 1/1000 dilution. Blots were incubated with secondary antibodies at 0.2ug/mL before imaging.

This data was provided by YCharOS Inc., an open science company with the mission of characterizing commercially available antibody reagents for all human proteins. Abcam and YCharOS are working together to help address the reproducibility crisis by enabling the life science community to better evaluate commercially available antibodies.

Lanes 1 - 2: Western blot – Anti-CHMP2B antibody [EPR10807(B)] (ab157208) at 1/1000 dilution

Lane 1: Wild-type U2OS lysate at 20 g

Lane 2: CHMP2B knockout U2OS cell lysate at 20 µg

Performed under reducing conditions
All lanes:
Western blot - Anti-CHMP2B antibody [EPR10807(B)] (ab157208) at 1/1000 dilution

Lane 1:
Wild-type U2OS lysate at 20 µg

Lane 2:
CHMP2B knock-out U2OS lysate at 24 µg

Observed band size: 24 kDa

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