abcam

ab81208

Anti-Cortactin antibody [EP1922Y]

Anti-Cortactin antibody [EP1922Y] (ab81208) is a rabbit monoclonal antibody detecting Cortactin in **Western Blot, Flow Cytometry (Intra), IP, IHC-P, ICC/IF**. Suitable for **Human, Mouse**.

- KO validated for confirmed specificity
- Biophysical QC for unrivalled batch-batch consistency
- Over 30 publications
- Trusted since 2009

Recombinant | RabMAb | KO Validated | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.05% Sodium azide Constituents: 50% Tissue culture supernatant, 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 0.1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EP1922Y
Purification technique	Affinity purification Protein A
Concentration	0.1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/100 - 1/250
Notes	Heat mediated antigen retrieval with citrate buffer, pH 6 or Tris-EDTA, pH 9 are both suitable methods IHC-P with this antibody.

Expected

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

Predicted

Species	Rat
Dilution info	-
Notes	-

IP

Tested

Species	Human
Dilution info	1/50
Notes	-

Expected

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

Predicted

Species	Rat
Dilution info	-

Notes	-

WB

Tested

Species	Mouse
Dilution info	1/50000 - 1/100000
Notes	-

Species	Human
Dilution info	1/50000 - 1/100000
Notes	-

Predicted

Species	Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/1000
Notes	-

Expected

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

Predicted

Species	Rat

Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

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

Expected

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

Predicted

Species	Rat
Dilution info	-
Notes	-

Target data

See full target information CTTN

Function

Contributes to the organization of the actin cytoskeleton and cell shape (PubMed:21296879). Plays a role in the formation of lamellipodia and in cell migration. Plays a role in the regulation of neuron morphology, axon growth and formation of neuronal growth cones (By similarity). Through its interaction with CTTNBP2, involved in the regulation of neuronal spine density (By similarity). Plays a role in focal adhesion assembly and turnover (By similarity). In complex with ABL1 and MYLK regulates cortical actin-based cytoskeletal rearrangement critical to sphingosine 1-phosphate (S1P)-mediated endothelial cell (EC) barrier enhancement (PubMed:20861316). Plays a role in intracellular protein transport and endocytosis, and in modulating the levels of potassium channels present at the cell membrane (PubMed:17959782). Plays a role in receptor-mediated endocytosis via clathrin-coated pits (By similarity). Required for stabilization of

KCNH1 channels at the cell membrane (PubMed:23144454). Plays a role in the invasiveness of cancer cells, and the formation of metastases (PubMed:16636290).

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

What is this antibody validated in?
Anti-Cortactin antibody [EP1922Y] (ab81208) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Immunoprecipitation (IP), Immunohistochemistry (IHC-P), Immunocytochemistry/immunofluorescence (ICC/IF) in Human, Mouse samples.

What is the molecular weight of Cortactin?
Anti-Cortactin [EP1922Y] (ab81208) specifically detects a band for Cortactin (UniProt: Q14247) at a molecular weight of 62kDa.

Trusted by the scientific community
Anti-Cortactin [EP1922Y] (ab81208) was first used in a scientific publication in 2009 and has been cited over 30 times in peer-reviewed journals.

Specificity confirmed
The specificity of Anti-Cortactin antibody [EP1922Y] (ab81208) has been confirmed by Western blot testing in CTTN Knockout HAP1 cell line, ab266819.

Other related products
We have a range of other formats of antibody clone [EP1922Y] also available for your convenience: ab81208, Alexa Fluor® 488 - ab202648, Alexa Fluor® 647 - ab202650, PE - ab209758, Alexa Fluor® 555 - ab215298, Alexa Fluor® 594 - ab215300, Carrier free - ab223125

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.

Trial sizes available!
Test your antibody or perform pre-screening before committing to a larger quantity. Sold in 20µl. Discover our selection of trial-size 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

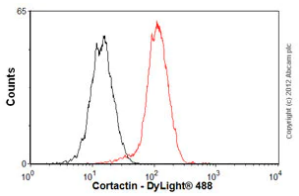
We do not recommend this combination. It is not covered by our product promise.

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.

9 product images

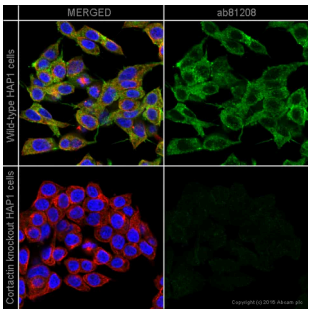


Flow Cytometry (Intracellular) - Anti-Cortactin antibody [EP1922Y] (ab81208)

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

Overlay histogram showing HeLa cells stained with ab81208 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab81208, 1/100 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rabbit IgG (H+L) (ab96899) at 1/500 dilution

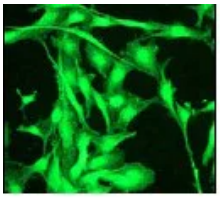
for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (1µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed.



Immunocytochemistry/ Immunofluorescence - Anti-Cortactin antibody [EP1922Y] (ab81208)

Cortactin Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Cortactin antibody

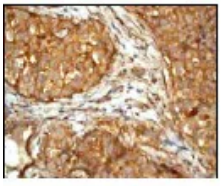
ab81208 staining Cortactin in wild-type HAP1 cells (top panel) and Cortactin knockout HAP1 cells (bottom panel). The cells were fixed with 4% formaldehyde (10min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with ab81208 at 1/1000 dilution and ab195889 at 1/250 dilution (shown in pseudo colour red) overnight at +4°C, followed by a further incubation at room temperature for 1h with a goat secondary antibody to Rabbit IgG (Alexa Fluor® 488) (ab150081) at 2 µg/ml (shown in green). Nuclear DNA was labelled in blue with DAPI. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



Immunocytochemistry/ Immunofluorescence - Anti-Cortactin antibody [EP1922Y] (ab81208)

Cortactin Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Cortactin antibody

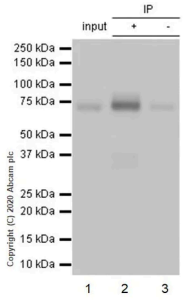
Immunofluorescent staining of MCF7 cells using 1/100 ab81208



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cortactin antibody [EP1922Y] (ab81208)

Cortactin Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cortactin antibody

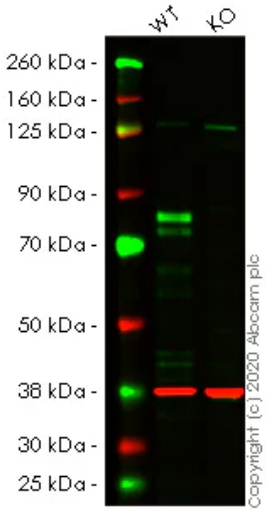
Immunohistochemical analysis of paraffin-embedded human breast carcinoma staining Cortacin with ab81208 at 1/100 dilution. Heat mediated antigen retrieval with Tris-EDTA (pH 9) was perfomed.
Heat mediated antigen retrieval was performed with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunoprecipitation - Anti-Cortactin antibody [EP1922Y] (ab81208)

Purified ab81208 at 1/50 dilution (2µg) immunoprecipitating Cortactin in HeLa whole cell lysate.
Lane 1 (input): HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate 10µg
Lane 2 (+): ab81208 + HeLa whole cell lysate.
Lane 3 (-): Rabbit monoclonal IgG (ab172730) instead of ab81208 in HeLa 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: 62 kDa
All lanes:
Immunoprecipitation - Anti-Cortactin antibody [EP1922Y] (ab81208)

Predicted band size: 62 kDa



Western blot - Anti-Cortactin antibody [EP1922Y] (ab81208)

Cortactin Western blot staining using rabbit Anti-Cortactin antibody

Lanes 1-2: Merged signal (red and green). Green - ab81208 observed at 70 kDa. Red - loading control ab8245 observed at 37 kDa.
ab81208 Anti-Cortactin antibody [EP1922Y] was shown to specifically react with Cortactin in wild-type HEK-293T cells. Loss of signal was observed when knockout cell line ab266819 (knockout cell lysate ab257147) was used. Wild-type and Cortactin knockout samples were subjected to SDS-PAGE. ab81208 and Anti-GAPDH antibody [6C5] - Loading Control (ab8245) were incubated overnight at 4°C at 1 in 50000 Dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (ab216776) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.

All lanes:
Western blot - Anti-Cortactin antibody [EP1922Y] (ab81208) at 1/50000 dilution

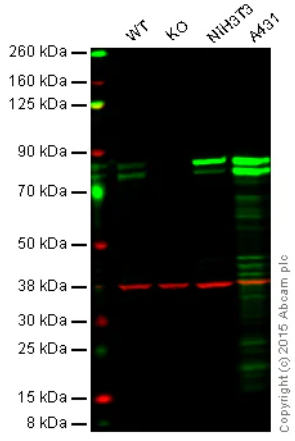
Lane 1:
Wild-type HEK-293T cell lysate at 20 µg

Lane 2:
Western blot - Human CTTN (Cortactin) knockout HEK-293T cell lysate (ab257147) at 20 µg

Performed under reducing conditions.

Predicted band size: 62 kDa

Observed band size: 70 kDa



Western blot - Anti-Cortactin antibody [EP1922Y] (ab81208)

Lanes 1 - 4: Merged signal (red and green). Green - ab81208 observed at 62 kDa. Red - loading control, ab8245, observed at 37 kDa.
ab81208 was shown to specifically react with Cortactin in wild-type HAP1 cells along with additional cross reactive bands. No band was observed when Cortactin knockout samples were examined. Wild-type and Cortactin knockout samples were subjected to SDS-PAGE. ab81208 and ab8245 (loading control to GAPDH) were both diluted 1/2000 and incubated overnight at 4°C. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (ab216776) secondary antibodies at 1/10,000 dilution for 1 hour at room temperature before imaging.

All lanes:
Western blot - Anti-Cortactin antibody [EP1922Y] (ab81208) at 1/2000 dilution

Lane 1:
Wild-type HAP1 cell lysate at 20 µg

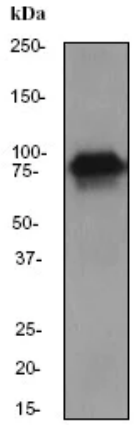
Lane 2:
Cortactin knockout HAP1 cell lysate at 20 µg

Lane 3:
NIH3T3 cell lysate at 20 µg

Lane 4:

A431 cell lysate at 20 µg

Predicted band size: 62 kDa



Western blot - Anti-Cortactin antibody [EP1922Y] (ab81208)

All lanes:
Western blot - Anti-Cortactin antibody [EP1922Y] (ab81208) at 1/100000 dilution

All lanes:
HeLa cell lysate at 10 µg

Secondary

All lanes:
HRP labelled Goat anti-Rabbit at 1/2000 dilution

Predicted band size: 62 kDa

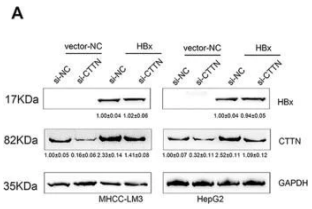


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Western blot - Anti-Cortactin antibody [EP1922Y] (ab81208)

Cortactin Western blot staining using rabbit Anti-Cortactin antibody

Cortactin western blot using anti-Cortactin antibody [EP1922Y] ab81208. Publication image and figure legend from Li, Y., Fu, Y., et al., 2019, Cell Death Dis, PubMed 31138777.

ab81208 was used in this publication in western blot. This may not be the same as the application(s) guaranteed by Abcam. For a full list of applications guaranteed by Abcam for ab81208 please see the product overview.

Effects of the HBx-CTTN interaction on cell proliferation and migration.a HepG2 and MHCC-LM3 cells were co-transfected with si-CTTN and pcDNA3.1(+)-HBx-overexpressing vectors. Protein expressions of HBx and CTTN were measured by western blot. b, c HepG2 and MHCC-LM3 cells were co-transfected with si-CTTN and pcDNA3.1(+)-HBx-overexpressing vectors and the cell viability was examined using MTT assays. d, e DNA synthesis was examined in BrdU assays; the data are presented as the mean ± SD of three independent experiments. f, g Migration of the indicated groups of cells examined using transwell assays on a light microscope. The statistical analysis was shown in the right panel. *p < 0.05, **p < 0.01

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