abcam

ab129082

Anti-CRMP1 + CRMP2 antibody [EPR7792]

Recombinant | RabMAb

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	EPR7792
Purification technique	Affinity purification Protein A
Dissociation constant	2.38 x 10^{-10} M
Concentration	0.118 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/1000
Notes	**For unpurified use at 1/100 - 1/250.**

	Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IP

Tested

Species	Human
Dilution info	1/10 - 1/100
Notes	-

Expected

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

WB

Tested

Species	Mouse
Dilution info	1/10000 - 1/50000
Notes	-

Species	Rat
Dilution info	1/10000 - 1/50000
Notes	-

Species	Human
Dilution info	1/10000 - 1/50000

Notes	-

ICC/IF

Tested

Species	Mouse
Dilution info	1/50 - 1/100
Notes	-

Expected

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

Flow Cyt (Intra)

Tested

Species	Mouse
Dilution info	1/10 - 1/1000
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Species	Human
Dilution info	1/10 - 1/1000
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Expected

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

Target data

See full target information DPYSL2

Function	Plays a role in neuronal development and polarity, as well as in axon growth and guidance, neuronal growth cone collapse and cell migration. Necessary for signaling by class 3 semaphorins and subsequent remodeling of the cytoskeleton. May play a role in endocytosis.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Storage information	Stable for 12 months at -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.

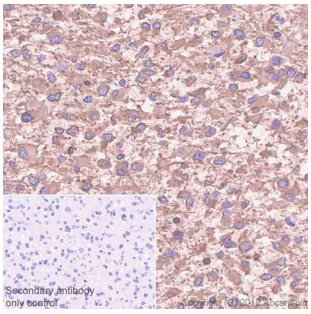
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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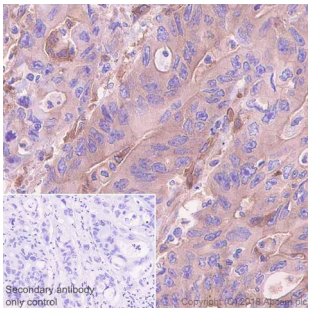
13 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CRMP1 + CRMP2 antibody [EPR7792] (ab129082)

CRMP1 + CRMP2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CRMP1 + CRMP2 antibody

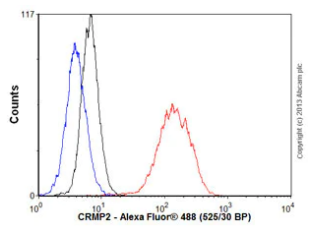
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human glioma tissue sections labeling CRMP2 with Purified ab129082 at 1:1000 dilution (0.12 µg/ml). Heat mediated antigen retrieval was performed using ab93684 (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use)was used as the secondary antibody. Negative control:PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CRMP1 + CRMP2 antibody [EPR7792] (ab129082)

CRMP1 + CRMP2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CRMP1 + CRMP2 antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human colon carcinoma tissue sections labeling CRMP2 with Purified ab129082 at 1:1000 dilution (0.12 µg/ml). Heat mediated antigen retrieval was performed using ab93684 (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use)was used as the secondary antibody. Negative control:PBS instead of the primary antibody. Hematoxylin was used as a counterstain.

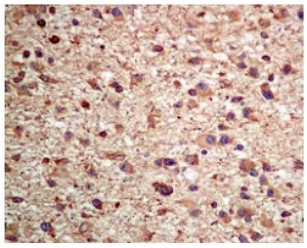


Flow Cytometry (Intracellular) - Anti-CRMP1 + CRMP2 antibody [EPR7792] (ab129082)

CRMP1 + CRMP2 Flow Cytometry (Intracellular) staining using rabbit Anti-CRMP1 + CRMP2 antibody

Overlay histogram showing SH-SY5Y cells stained with ab129082 (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

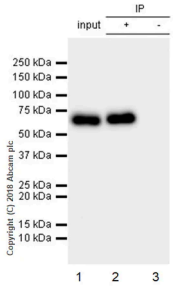
protein-protein interactions followed by the antibody (ab129082, 1/1000 dilution) for 30 min at 22°C. The secondary antibody used was Alexa Fluorr® 488 goat anti-rabbit IgG (H&L) (ab150077) at 1/2000 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (0.1µg/1x10^6 cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CRMP1 + CRMP2 antibody [EPR7792] (ab129082)

CRMP1 + CRMP2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CRMP1 + CRMP2 antibody

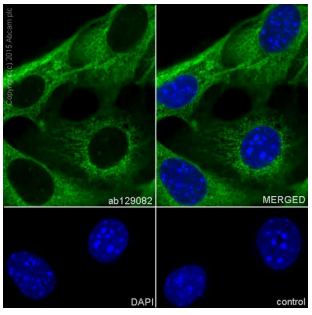
ab129082, at a dilution of 1/100, staining CRMP2 in paraffin embedded Human astrocytoma tissue by Immunohistochemistry.
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunoprecipitation - Anti-CRMP1 + CRMP2 antibody [EPR7792] (ab129082)

ab129082 (purified) at 1:20 dilution (0.5µg) immunoprecipitating CRMP2 in U-87 MG whole cell lysate.
Lane 1 (input): U-87 MG (Human glioblastoma-astrocytoma epithelial cell) whole cell lysate 10µg
Lane 2 (+): ab129082 & U-87 MG whole cell lysate
Lane 3 (-): Rabbit monoclonal IgG (ab172730) instead of ab129082 in U-87 MG whole cell lysate
For western blotting, VeriBlot for IP Detection Reagent (HRP) (ab131366) was used for detection at 1:1000 dilution.
Blocking and diluting buffer: 5% NFDM/TBST.
All lanes:
Immunoprecipitation - Anti-CRMP1 + CRMP2 antibody [EPR7792] (ab129082)

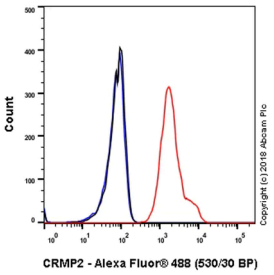
Predicted band size: 47 kDa



Immunocytochemistry/ Immunofluorescence - Anti-CRMP1 + CRMP2 antibody [EPR7792] (ab129082)

CRMP1 + CRMP2 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-CRMP1 + CRMP2 antibody

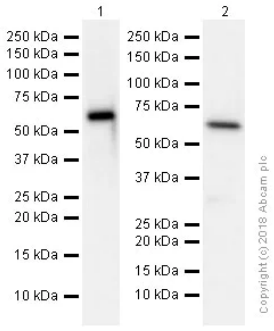
ab129082 staining CRMP2 in NIH/3T3 (mouse embryonic fibroblast) cells by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with 100% methanol. Samples were incubated with primary antibody at a dilution of 1/500. A goat anti rabbit IgG (Alexa Fluor® 488) (ab150077) was used as the secondary antibody at a dilution of 1/1000. DAPI was used as a nuclear counterstain.
Negative control 1: PBS only.



Flow Cytometry (Intracellular) - Anti-CRMP1 + CRMP2 antibody [EPR7792] (ab129082)

CRMP1 + CRMP2 Flow Cytometry (Intracellular) staining using rabbit Anti-CRMP1 + CRMP2 antibody

Intracellular Flow Cytometry analysis of NIH/3T3 (Mouse embryonic fibroblast) cells labeling CRMP2 with Purified ab129082 at 1/20 dilution (10µg/ml) (red). Cells were fixed with 4% Paraformaldehyde. A Goat anti rabbit IgG (Alexa Fluorr® 488, ab150077) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Western blot - Anti-CRMP1 + CRMP2 antibody [EPR7792] (ab129082)

CRMP1 + CRMP2 Western blot staining using rabbit Anti-CRMP1 + CRMP2 antibody

U-87 MG (Human glioblastoma-astrocytoma epithelial cell) whole cell lysates
All lanes:
Western blot - Anti-CRMP1 + CRMP2 antibody [EPR7792] (ab129082) at 1/50000 dilution

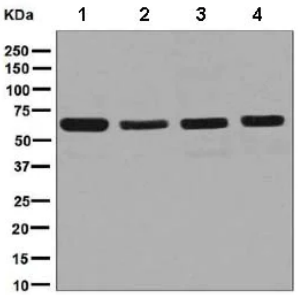
Lane 1:
U-87 MG (Human glioblastoma-astrocytoma epithelial cell) whole cell lysates

Lane 2:
HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates

Secondary

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

Observed band size: 64 kDa



Western blot - Anti-CRMP1 + CRMP2 antibody [EPR7792] (ab129082)

All lanes:
Western blot - Anti-CRMP1 + CRMP2 antibody [EPR7792] (ab129082) at 1/10000 dilution

Lane 1:
PC12 cell lysate at 10 µg

Lane 2:
Jurkat cell lysate at 10 µg

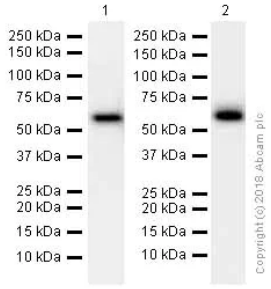
Lane 3:
U87 MG cell lysate at 10 µg

Lane 4:
NIH 3T3 cell lysate at 10 µg

Secondary

All lanes:
HRP labelled goat anti-rabbit at 1/2000 dilution

Observed band size: 64 kDa



Western blot - Anti-CRMP1 + CRMP2 antibody [EPR7792] (ab129082)

All lanes:
Western blot - Anti-CRMP1 + CRMP2 antibody [EPR7792] (ab129082) at 1/100000 dilution

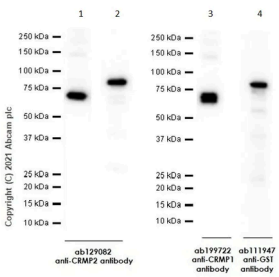
Lane 1:
NIH/3T3 (Mouse embryonic fibroblast) whole cell lysates

Lane 2:
PC-12 (Rat adrenal gland pheochromocytoma) whole cell lysates

Secondary

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

Observed band size: 64 kDa



Western blot - Anti-CRMP1 + CRMP2 antibody [EPR7792] (ab129082)

CRMP1 + CRMP2 Western blot staining using rabbit Anti-CRMP1 + CRMP2 antibody

Blocking and dilution buffer: 5% NFDM /TBST
All lanes:
Western blot - Anti-CRMP1 + CRMP2 antibody [EPR7792] (ab129082) at 1/1000 dilution

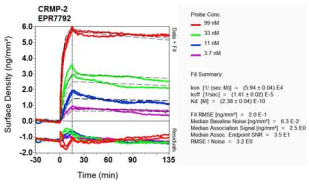
Lanes 1 and 3:
Western blot - Recombinant Human CRMP1 protein (His tag N-Terminus) (ab202599)

Lanes 2 and 4:
Western blot - Recombinant Human CRMP2 protein (GST tag N-Terminus) (ab114269)

Secondary

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

Exposure time: 3s



OI-RD Scanning - Anti-CRMP1 + CRMP2 antibody [EPR7792] (ab129082)

We have systematically measured KD (the equilibrium dissociation constant between the antibody and its antigen), of more than 840 recombinant antibodies to assess not only their individual KD values but also to see the average affinity of antibody. Based on the comparison with published literature values for mouse monoclonal antibodies, Recombinant antibodies appear to be on average 1-2 order of magnitude higher affinity.

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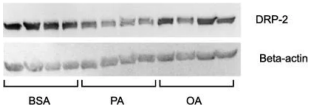


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Western blot - Anti-CRMP1 + CRMP2 antibody [EPR7792] (ab129082)

CRMP1 + CRMP2 Western blot staining using rabbit Anti-CRMP1 + CRMP2 antibody

CRMP1 + CRMP2 western blot using anti-CRMP1 + CRMP2 antibody [EPR7792] ab129082. Publication image and figure legend from McLean, F. H., Campbell, F. M., et al., 2019, Nutr Metab (Lond), PubMed 31168311.

ab129082 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 ab129082 please see the product overview.

a Representative immunoblots showing changes in DRP-2 and beta-actin protein expression in response to fatty acid free BSA, PA and OA challenge in N42 cells b Quantification of DRP-2 bands normalised to beta-actin (n = 4 plates) BSA - bovine serum albumin, DRP-2 - dihydropyrimidinase-related protein 2, PA - palmitic acid, OA - oleic acid (* $p < 0.05$). c-e Representative fluorescence microscopy images of N42 hypothalamic neuronal mitochondria using MitoTracker® Red CMXRos. The red colour corresponds to mitochondria. Cells were challenged with, c fatty acid free BSA, d 200 µM PA and e 200 µM OA (Bar = 10 µm. Magnification = X100). f The percentage (%) area of the cell occupied by mitochondria after challenge. BSA - bovine serum albumin, PA - palmitic acid, OA - oleic acid (*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$)

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