abcam

ab273570

Anti-DCC antibody [EPR23313-115]

Anti-DCC antibody [EPR23313-115] (ab273570) is a rabbit monoclonal antibody detecting DCC in **Western Blot, Flow Cytometry, IP, IHC-P, IHC-Fr**. Suitable for **Human, Mouse, Rat**.

- Biophysical QC for unrivalled batch-batch consistency

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	EPR23313-115
Purification technique	Affinity purification Protein A
Concentration	0.613 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Mouse
Dilution info	1/30

Notes	-

Species	Human
Dilution info	1/30
Notes	-

Expected

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

Flow Cyt

Tested

Species	Rat
Dilution info	1/50
Notes	-

Expected

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

WB

Tested

Species	Rat
Dilution info	1/1000
Notes	-

Species	Human
Dilution info	1/1000

Notes	-

Species	Mouse
Dilution info	1/1000
Notes	-

ICC/IF

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

IHC-Fr

Tested

Species	Mouse
Dilution info	1/100
Notes	Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).

Species	Rat
Dilution info	1/100
Notes	Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).

Expected

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

IHC-P

Tested

Species	Mouse
Dilution info	1/2000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Rat
Dilution info	1/2000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Human
Dilution info	1/2000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Target data

See full target information DCC

Function	Receptor for netrin required for axon guidance. Mediates axon attraction of neuronal growth cones in the developing nervous system upon ligand binding. Its association with UNC5 proteins may trigger signaling for axon repulsion. It also acts as a dependence receptor required for apoptosis induction when not associated with netrin ligand. Implicated as a tumor suppressor gene.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
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-DCC antibody [EPR23313-115] (ab273570) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Flow Cyt), Immunoprecipitation (IP), Immunohistochemistry (IHC-P), Immunohistochemistry (IHC-Fr) in Human, Mouse, Rat samples.

What is the molecular weight of DCC?
Anti-DCC [EPR23313-115] (ab273570) specifically detects a band for DCC (UniProt: P43146) at a molecular weight of 158kDa.

Other related products
We have a range of other formats of antibody clone [EPR23313-115] also available for your convenience: ab273570, Carrier free - ab273576

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

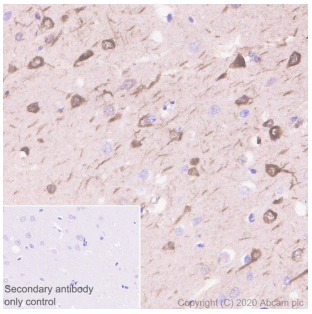
We do not recommend this combination. It is not covered by our product promise.

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.

11 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DCC antibody [EPR23313-115] (ab273570)

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

Immunohistochemical analysis of paraffin-embedded Human cerebrum tissue labeling DCC with ab273570 at 1/2000 dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Cytoplasmic staining on human cerebrum (PMID: 11684721). The section was incubated with ab273570 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.
Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.



Immunoprecipitation - Anti-DCC antibody [EPR23313-115] (ab273570)

DCC was immunoprecipitated from 0.35 mg Human hippocampus tissue lysate with ab273570 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab273570 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP)(ab131366) was used at 1/5000 dilution.
Lane 1: Human hippocampus tissue lysate 10 ug

Lane 2: ab273570 IP in Human hippocampus tissue lysate

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab273570 in human hippocampus tissue lysate

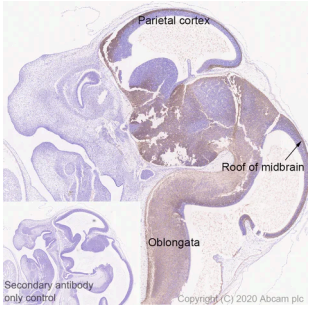
Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 10 seconds.

All lanes:
Immunoprecipitation - Anti-DCC antibody [EPR23313-115] (ab273570)

Predicted band size: 158 kDa, 176 kDa

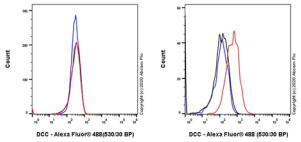
Observed band size: 175 kDa, 250 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DCC antibody [EPR23313-115] (ab273570)

Immunohistochemical analysis of paraffin-embedded Rat E14.5 tissue labeling DCC with ab273570 at 1/2000 dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Cytoplasmic staining on rat E14.5 cerebrum (PMID: 24739528). The section was incubated with ab273570 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.
Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

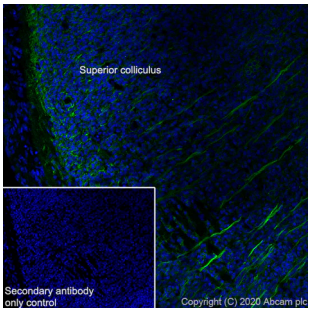


Flow Cytometry - Anti-DCC antibody [EPR23313-115] (ab273570)

DCC Flow Cytometry staining using rabbit Anti-DCC antibody

Flow cytometric analysis of PC-12 (Rat adrenal gland pheochromocytoma, Left) / Rat primary neuron cells (Right) cells labelling DCC with ab273570 at 1/50 dilution (1ug) (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody.
Negative control: PC12 (PMID: 8044801).

Gated on viable cells.

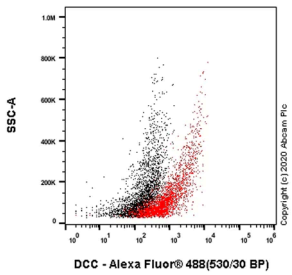


Immunohistochemistry (Frozen sections) - Anti-DCC antibody [EPR23313-115] (ab273570)

DCC Immunohistochemistry (Frozen sections) staining using rabbit Anti-DCC antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Rat E14.5 embryo tissue labeling DCC with ab273570 at 1/100 dilution followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution (Green). Positive staining on rat embryonic brain is observed. The nuclear counterstain was DAPI (Blue).
Secondary antibody control: Secondary antibody is ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.

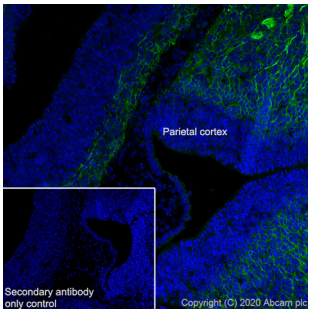
Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).



Flow Cytometry - Anti-DCC antibody [EPR23313-115] (ab273570)

DCC Flow Cytometry staining using rabbit Anti-DCC antibody

Flow cytometric analysis of Rat primary neuron cells cells labelling DCC with ab273570 at 1/50 dilution (1ug) (Red) compared with a Rabbit monoclonal IgG (ab172730) isotype control (Black). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody.
Gated on viable cells.

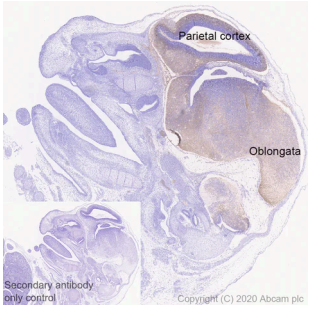


Immunohistochemistry (Frozen sections) - Anti-DCC antibody [EPR23313-115] (ab273570)

DCC Immunohistochemistry (Frozen sections) staining using rabbit Anti-DCC antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse E14.5 embryo tissue labeling DCC with ab273570 at 1/100 dilution followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution (Green). Positive staining on mouse embryonic brain is observed. The nuclear counterstain was DAPI (Blue).
Secondary antibody control: Secondary antibody is ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488)at 1/1000 dilution.

Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).

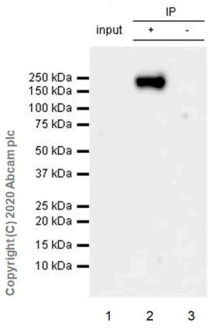


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DCC antibody [EPR23313-115] (ab273570)

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

Immunohistochemical analysis of paraffin-embedded Mouse E14.5 tissue labeling DCC with ab273570 at 1/2000 dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Cytoplasmic staining on mouse E14.5 cerebrum (PMID: 24739528). The section was incubated with ab273570 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.
Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.



Immunoprecipitation - Anti-DCC antibody [EPR23313-115] (ab273570)

DCC was immunoprecipitated from 0.35 mg Mouse P5 cerebral cortex tissue lysate with ab273570 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab273570 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP)(ab131366) was used at 1/5000 dilution.
Lane 1: Mouse P5 cerebral cortex tissue lysate 10 ug

Lane 2: ab273570 IP in Mouse P5 cerebral cortex tissue lysate

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab273570 in Mouse P5 cerebral cortex tissue lysate

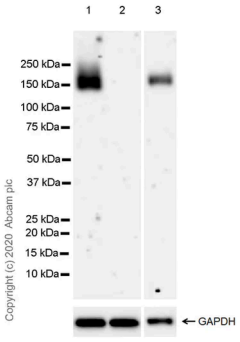
Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 32 seconds.

All lanes:
Immunoprecipitation - Anti-DCC antibody [EPR23313-115] (ab273570)

Predicted band size: 158 kDa

Observed band size: 175 kDa



Western blot - Anti-DCC antibody [EPR23313-115] (ab273570)

DCC Western blot staining using rabbit Anti-DCC antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.
DCC is a glycoprotein. The molecular weight observed is consistent with what have been described in the literature (PMID: 8044801).

Negative control: SW480 (PMID: 7926722).

Exposure time: 3 minutes.

All lanes:
Western blot - Anti-DCC antibody [EPR23313-115] (ab273570) at 1/1000 dilution

Lane 1:
Human hippocampus tissue lysate at 20 µg

Lane 2:
SW480 (human colorectal adenocarcinoma epithelial cell) whole cell lysate at 20 µg

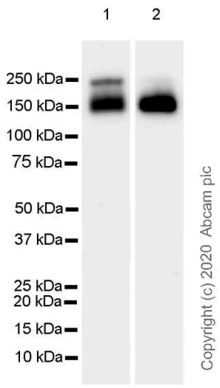
Lane 3:
Mouse P5 hippocampus tissue lysate at 20 µg

Secondary

All lanes:
VeriBlot for IP secondary antibody(HRP)(ab131366) at 1/1000 dilution

Predicted band size: 158 kDa

Observed band size: 175 kDa



Western blot - Anti-DCC antibody [EPR23313-115] (ab273570)

DCC Western blot staining using rabbit Anti-DCC antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.
DCC is a glycoprotein. The molecular weight observed is consistent with what have been described in the literature (PMID: 8044801).

Samples are non-boiled as boiling may cause protein aggregates.

Exposure time: 26 seconds.

All lanes:
Western blot - Anti-DCC antibody [EPR23313-115] (ab273570) at 1/1000 dilution

Lane 1:
Rat P7 hippocampus tissue lysate at 20 µg

Lane 2:
Rat E18 brain tissue lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1/50000 dilution

Predicted band size: 158 kDa

Observed band size: 175 kDa, 240 kDa

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