abcam

ab183709

Anti-Dcp1a antibody [EPR13822]

Anti-Dcp1a antibody [EPR13822] (ab183709) is a rabbit monoclonal antibody detecting Dcp1a in **Western Blot, Flow Cytometry (Intra), IHC-P, ICC/IF**. Suitable for **Human**.

- KO validated for confirmed specificity
- Biophysical QC for unrivalled batch-batch consistency

Recombinant | RabMAb | KO Validated

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 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	EPR13822
Purification technique	Affinity purification Protein A
Concentration	0.795 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Human

Dilution info	1/1000 - 1/10000
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/250
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/150
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Predicted

Species	Mouse, Rat
Dilution info	-

Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/250
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information DCP1A

Function	Necessary for the degradation of mRNAs, both in normal mRNA turnover and in nonsense-mediated mRNA decay (PubMed:12417715). Removes the 7-methyl guanine cap structure from mRNA molecules, yielding a 5'-phosphorylated mRNA fragment and 7m-GDP (PubMed:12417715). Contributes to the transactivation of target genes after stimulation by TGFB1 (PubMed:11836524). Essential for embryonic development (PubMed:33813271).

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-Dcp1a antibody [EPR13822] (ab183709) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Immunohistochemistry (IHC-P), Immunocytochemistry/immunofluorescence (ICC/IF) in Human samples.

What is the molecular weight of Dcp1a?
Anti-Dcp1a [EPR13822] (ab183709) specifically detects a band for Dcp1a (UniProt: Q9NPI6) at a molecular weight of 63kDa.

Specificity confirmed
The specificity of Anti-Dcp1a antibody [EPR13822] (ab183709) has been confirmed by Western blot testing in DCP1A Knockout HEK-293 cell line, ab261857.

Other related products
We have a range of other formats of antibody clone [EPR13822] also available for your convenience: ab183709, Alexa Fluor® 488 - ab208275, Alexa Fluor® 647 - ab209946, Alexa Fluor® 555 - ab211853, Alexa Fluor® 594 - ab217092, Carrier free - ab240275, PE - ab305967, APC - ab305968, HRP - ab305969, Alkaline Phosphatase - ab308746, Alexa Fluor® 568 - ab312465, Alexa Fluor® 750 - ab321279

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

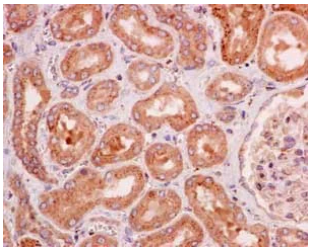
We do not recommend this combination. It is not covered by our product promise.

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.

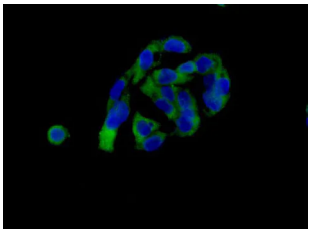
7 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Dcp1a antibody [EPR13822] (ab183709)

Dcp1a Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Dcp1a antibody

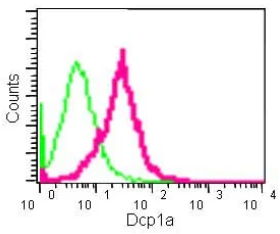
Immunohistochemical analysis of paraffin-embedded Human kidney tissue labeling Dcp1a with ab183709 at 1/250 dilution followed by prediluted HRP Polymer for Rabbit IgG. Counter stained with Hematoxylin.
Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-Dcp1a antibody [EPR13822] (ab183709)

Dcp1a Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Dcp1a antibody

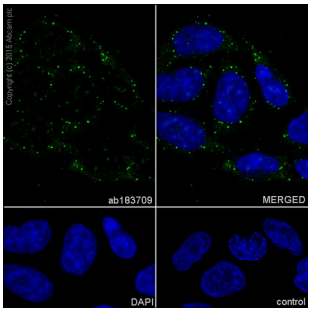
Immunofluorescent analysis of 4% paraformaldehyde-fixed HepG2 cells labeling Dcp1a with ab183709 at 1/250 dilution, followed by Goat anti rabbit IgG (Alexa Fluor® 488) secondary antibody at 1/200 dilution (green). Counter stained with Dapi (blue).



Flow Cytometry (Intracellular) - Anti-Dcp1a antibody [EPR13822] (ab183709)

Dcp1a Flow Cytometry (Intracellular) staining using rabbit Anti-Dcp1a antibody

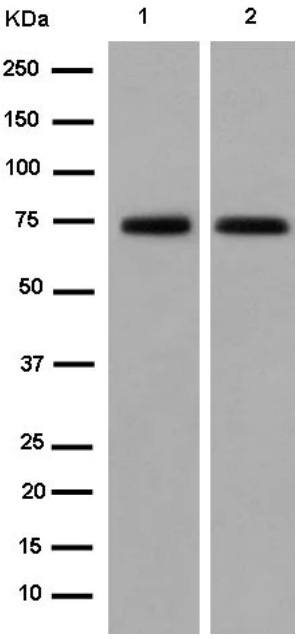
Intracellular flow cytometric analysis of 2% paraformaldehyde-fixed HeLa cells labeling Dcp1a with ab183709 at 1/150 dilution (red) compared to a Rabbit monoclonal IgG isotype control (green), followed by Goat anti rabbit IgG (FITC) secondary antibody at 1/150 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-Dcp1a antibody [EPR13822] (ab183709)

Dcp1a Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Dcp1a antibody

ab183709 staining Dcp1a in HeLa (human cervix adenocarcinoma) cells by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with 4% Paraformaldehyde and permeabilized with 0.1% Triton X-100. 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.
Control: PBS only



Western blot - Anti-Dcp1a antibody [EPR13822] (ab183709)

All lanes:
Western blot - Anti-Dcp1a antibody [EPR13822] (ab183709) at 1/2000 dilution

Lane 1:
HeLa cell lysate at 10 µg

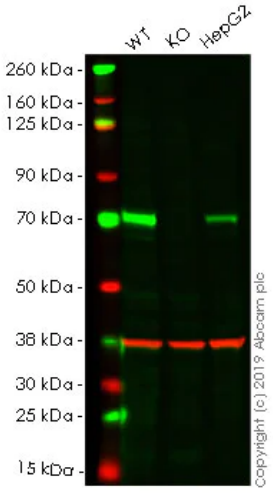
Lane 2:
HepG2 cell lysate at 10 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugate at 1/1000 dilution

Predicted band size: 42 kDa, 63 kDa, 72 kDa, 98 kDa

Observed band size: 75 kDa



Western blot - Anti-Dcp1a antibody [EPR13822] (ab183709)

Dcp1a Western blot staining using rabbit Anti-Dcp1a antibody

Lanes 1 - 3: Merged signal (red and green). Green - ab183709 observed at 75 kDa. Red - loading control, ab8245, observed at 37 kDa.
ab183709 was shown to specifically react with DCP1A in wild-type HEK-293 cells as signal was lost in DCP1A knockout cell line ab261857 (knockout cell lysate ab261665). Wild-type and DCP1A knockout samples were subjected to SDS-PAGE. ab183709 and ab8245 (Mouse anti GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution 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.

All lanes:
Western blot - Anti-Dcp1a antibody [EPR13822] (ab183709) at 1/1000 dilution

Lane 1:
Wild-type HEK-293 (Human epithelial cell line from embryonic kidney) whole cell lysate at 20 µg

Lane 2:
DCP1A knockout HEK-293 (Human epithelial cell line from embryonic kidney) whole cell lysate at 20 µg

Lane 2:

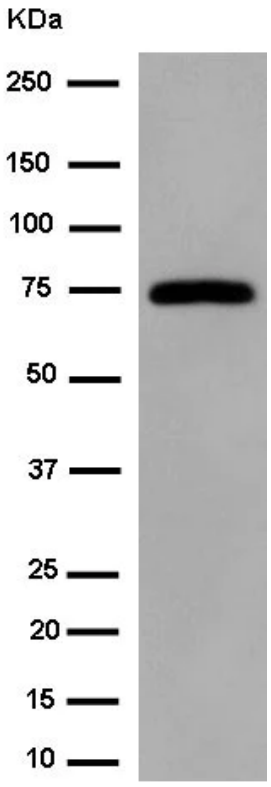
Western blot - Human DCP1A knockout HEK-293 cell line (ab261857)

Lane 3:
HepG2 (Human liver hepatocellular carcinoma cell line) whole cell lysate at 20 µg

Performed under reducing conditions.

Predicted band size: 63 kDa

Observed band size: 75 kDa



Western blot - Anti-Dcp1a antibody [EPR13822] (ab183709)

All lanes:
Western blot - Anti-Dcp1a antibody [EPR13822] (ab183709) at 1/10000 dilution

All lanes:
293T cell lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugate at 1/1000 dilution

Predicted band size: 63 kDa

Observed band size: 75 kDa

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