

Product datasheet

Anti-Dcp1a antibody [EPR13822] ab183709


KO VALIDATED

Recombinant

RabMAb

[5 References](#) [8 Images](#)

Overview

Product name	Anti-Dcp1a antibody [EPR13822]
Description	Rabbit monoclonal [EPR13822] to Dcp1a
Host species	Rabbit
Tested applications	Suitable for: Flow Cyt (Intra), IHC-P, WB, ICC/IF
Species reactivity	Reacts with: Human Predicted to work with: Mouse, Rat 
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HEK- 293, HeLa, and HepG2 whole cell lysate; IHC-P: Human kidney tissue; ICC/IF: HepG2 and HeLa cells; Flow Cyt (intra): HeLa cells.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR13822

Isotype

IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab183709 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/150. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
IHC-P		1/250. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
WB		1/1000 - 1/10000. Detects a band of approximately 75 kDa (predicted molecular weight: 63 kDa).
ICC/IF		1/250.

Target

Function

Necessary for the degradation of mRNAs, both in normal mRNA turnover and in nonsense-mediated mRNA decay. Removes the 7-methyl guanine cap structure from mRNA molecules, yielding a 5'-phosphorylated mRNA fragment and 7m-GDP. Contributes to the transactivation of target genes after stimulation by TGFB1.

Tissue specificity

Detected in heart, brain, placenta, lung, skeletal muscle, liver, kidney and pancreas.

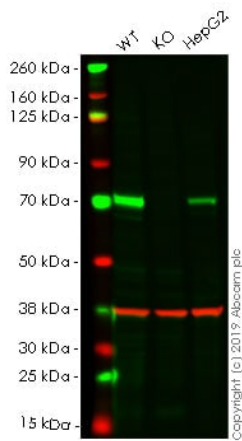
Sequence similarities

Belongs to the DCP1 family.

Cellular localization

Cytoplasm > P-body. Nucleus. Co-localizes with NANOS3 in the processing bodies (By similarity). Predominantly cytoplasmic, in processing bodies (PB). Nuclear, after TGFB1 treatment. Translocation to the nucleus depends on interaction with SMAD4.

Images



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

All lanes : 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

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

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

Lysates/proteins at 20 µg per lane.

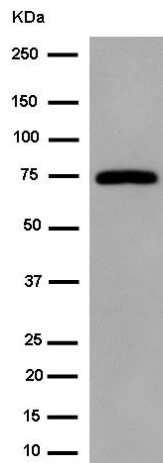
Performed under reducing conditions.

Predicted band size: 63 kDa

Observed band size: 75 kDa

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 cells. 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.



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

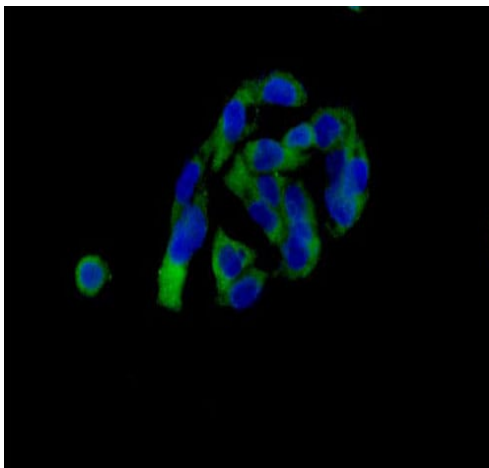
Anti-Dcp1a antibody [EPR13822] (ab183709) at 1/10000 dilution +
293T cell lysate at 20 µg

Secondary

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

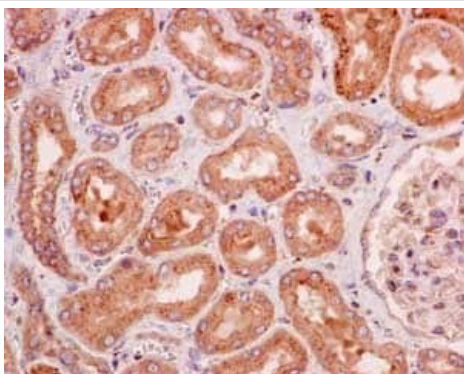
Predicted band size: 63 kDa

Observed band size: 75 kDa



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

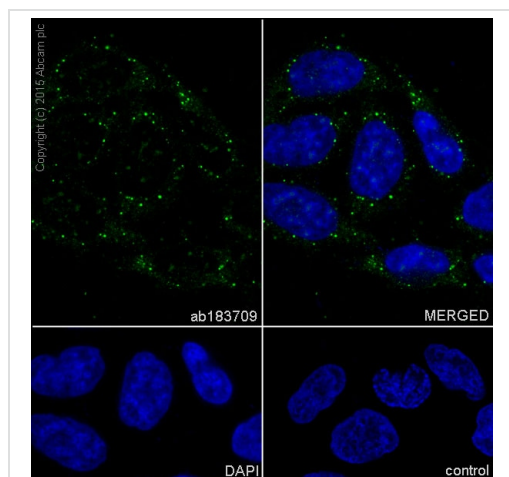
Immunofluorescent analysis of 4% paraformaldehyde-fixed HepG2
cells labeling Dcp1a with ab183709 at 1/250 dilution, followed by
Goat anti rabbit IgG (Alexa Fluor® 488) secondary antibody at
1/200 dilution (green). Counter stained with Dapi (blue).



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

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.

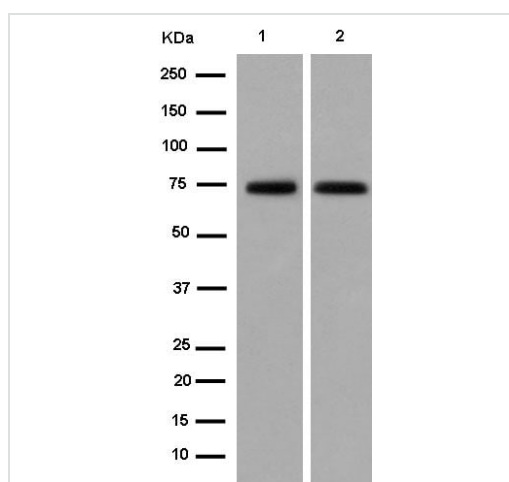
Perform heat mediated antigen retrieval with EDTA buffer pH 9
before commencing with IHC staining protocol.



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

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

Lane 1 : HeLa cell lysate

Lane 2 : HepG2 cell lysate

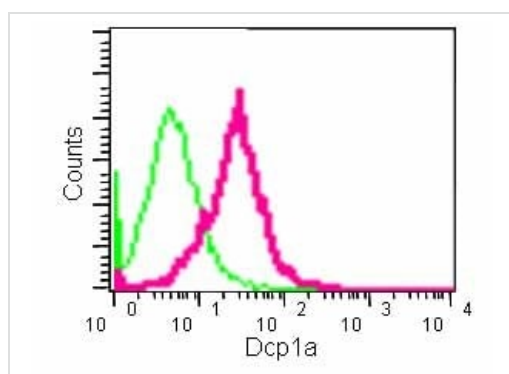
Lysates/proteins at 10 µg per lane.

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



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

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.

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-Dcp1a antibody [EPR13822] (ab183709)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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