

Product datasheet

HRP Anti-CDC42 antibody [EPR15620] ab215810

KO VALIDATED Recombinant RabMAb

3 Images

Overview

Product name	HRP Anti-CDC42 antibody [EPR15620]
Description	HRP Rabbit monoclonal [EPR15620] to CDC42
Host species	Rabbit
Conjugation	HRP
Tested applications	Suitable for: WB
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Recombinant fragment within Human CDC42 aa 50 to the C-terminus. The exact immunogen sequence used to generate this antibody is proprietary information. If additional detail on the immunogen is needed to determine the suitability of the antibody for your needs, please contact our Scientific Support team to discuss your requirements. Database link: P60953
Positive control	HeLa, HepG2, MCF7, Mouse spleen, Rat spleen, HAP1 WT (shows pos.), CDC42 HAP1 KO (shows neg.)
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: <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 For more information see here . Our RabMAb [®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents .

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. Avoid freeze / thaw cycle. Store In the Dark.
Storage buffer	pH: 7.40 Preservative: 0.1% Proclin 300 Solution Constituents: 1% BSA, 30% Glycerol (glycerin, glycerine), PBS

Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR15620
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab215810 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
WB		Use at an assay dependent concentration. Predicted molecular weight: 21 kDa.

Target

Function	Plasma membrane-associated small GTPase which cycles between an active GTP-bound and an inactive GDP-bound state. In active state binds to a variety of effector proteins to regulate cellular responses. Involved in epithelial cell polarization processes. Causes the formation of thin, actin-rich surface projections called filopodia.
Sequence similarities	Belongs to the small GTPase superfamily. Rho family. CDC42 subfamily.
Post-translational modifications	AMPylation at Tyr-32 and Thr-35 are mediated by bacterial enzymes in case of infection by H.somnus and V.parahaemolyticus, respectively. AMPylation occurs in the effector region and leads to inactivation of the GTPase activity by preventing the interaction with downstream effectors, thereby inhibiting actin assembly in infected cells. It is unclear whether some human enzyme mediates AMPylation; FICD has such ability in vitro but additional experiments remain to be done to confirm results in vivo.
Cellular localization	Cell membrane.
Form	There are 2 isoforms produced by alternative splicing. Isoform 1 also known as: Brain; Isoform 2 also known as: Placental.

Images



Western blot - HRP Anti-CDC42 antibody
[EPR15620] (ab215810)

All lanes : HRP Anti-CDC42 antibody [EPR15620] (ab215810) at 1/1000 dilution

Lane 1 : Wild-type HAP1 whole cell lysate

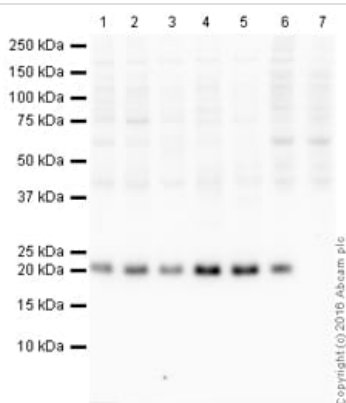
Lane 2 : CDC42 knockout HAP1 whole cell lysate

Lysates/proteins at 20 µg per lane.

Predicted band size: 21 kDa

Exposure time: 20 minutes

ab215810 was shown to recognize CDC42 in wild-type HAP1 cells as signal was lost at the expected MW in CDC42 knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and CDC42 knockout samples were subjected to SDS-PAGE. ab215810 and **ab184095** (Mouse monoclonal [mAbcam 9484] to GAPDH - Loading Control (Alexa Fluor® 680) loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/1000 dilution respectively. The loading control was imaged using the Licor Odyssey CLx prior to blots being developed with ECL technique.



Western blot - HRP Anti-CDC42 antibody
[EPR15620] (ab215810)

All lanes : HRP Anti-CDC42 antibody [EPR15620] (ab215810) at 1/5000 dilution

Lane 1 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate at 10 µg

Lane 2 : HepG2 (Human hepatocellular liver carcinoma cell line) Whole Cell Lysate at 10 µg

Lane 3 : MCF-7 (Human breast adenocarcinoma cell line) Whole Cell Lysate at 10 µg

Lane 4 : Spleen (Mouse) Tissue Lysate at 10 µg

Lane 5 : Spleen (Rat) Tissue Lysate at 10 µg

Lane 6 : HAP1 WT at 20 µg

Lane 7 : CDC42 knockout HAP1 at 20 µg

Developed using the ECL technique.

Performed under reducing conditions.





Predicted band size: 21 kDa

Observed band size: 21 kDa

Exposure time: 30 seconds

This blot was produced using a 4-12% Bis-tris gel under the MES buffer system. The gel was run at 200V for 35 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 2% Bovine Serum Albumin before being incubated with ab215810 overnight at 4°C. Antibody binding was visualised using ECL development solution **ab133406**.

Why choose a recombinant antibody?

 <p>Research with confidence Consistent and reproducible results</p>	 <p>Long-term and scalable supply Recombinant technology</p>
 <p>Success from the first experiment Confirmed specificity</p>	 <p>Ethical standards compliant Animal-free production</p>

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

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