abcam

Product datasheet

Anti-CDC42 antibody [M430] ab202280

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3 Images

Overview

Product name	Anti-CDC42 antibody [M430]
Description	Mouse monoclonal [M430] to CDC42
Host species	Mouse
Specificity	ab202280 does not recognize a full length human RhoA GST fusion protein.
Tested applications	**Suitable for:** WB, ICC/IF
Species reactivity	**Reacts with:** Mouse, Rat, Human **Predicted to work with:** Chicken, Cow, Dog, Pig, Drosophila melanogaster, Cynomolgus monkey
Immunogen	Recombinant full length protein corresponding to Rat CDC42 aa 1-191. Sequence: MQTIKCVVVGDGAVGKTCLLISYTTNKFPSEYVPTVFD NYAVTVMIGGEP YTLGLFDTAGQEDYDRLRPLSYPQTDVFLVCFSVVSP SSFENVKEKWVPE ITHHCPKTPFLLVGTQIDLRDDPSTIEKLAKNKQKPITPE TAEKLARDLK AVKYVECSALTQKGLKNVFDEAILAALEPPEPKKSRR CVLL Database link: Q8CFN2 Run BLAST with Run BLAST with
Positive control	Jurkat cells and mouse brain lysates; rat A7r5 cells; recombinant full length rat Cdc42 fusion protein.

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	Preservative: 0.05% Sodium azide

	Constituents: 50% Glycerol, 0.1% BSA, 49% PBS
Purity	Immunogen affinity purified
Clonality	Monoclonal
Clone number	M430
Isotype	IgM

Applications

Our Abpromise guarantee covers the use of **ab202280** in the following tested applications.

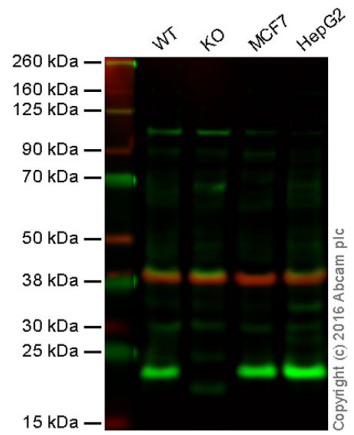
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/500. Predicted molecular weight: 21 kDa.
ICC/IF		1/200.

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.

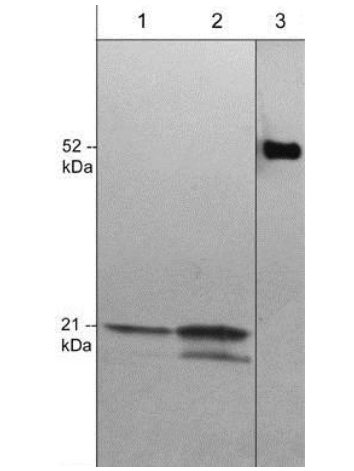
Images



Western blot - Anti-CDC42 antibody [M430] (ab202280)

Lane 1: Wild-type HAP1 cell lysate (20 µg)
Lane 2: CDC42 knockout HAP1 cell lysate (20 µg)
Lane 3: MCF7 cell lysate (20 µg)
Lane 4: HepG2 cell lysate (20 µg)
Lanes 1 - 4: Merged signal (red and green). Green - ab202280 observed at 20 kDa. Red - loading control, ab181602, observed at 37 kDa.

ab202280 was shown to recognize CDC42 in wild-type HAP1 cells along with additional cross-reactive bands. No band was observed when CDC42 knockout samples were examined. Wild-type and CDC42 knockout samples were subjected to SDS-PAGE. ab202280 and ab181602 (loading control to GAPDH) were diluted at 1/500 and 1/10,000 respectively and incubated overnight at 4°C. Blots were developed with Goat anti-Mouse IgG H&L (IRDye® 800CW) preadsorbed ab216772 and Goat Anti-Rabbit IgG H&L (IRDye® 680RD) preadsorbed ab216777 secondary antibodies at 1/10,000 dilution for 1 hour at room temperature before imaging.

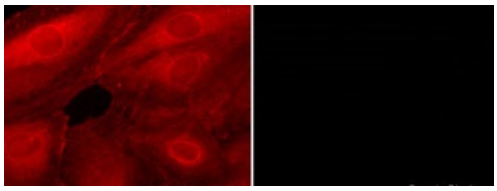


Western blot - Anti-CDC42 antibody [M430] (ab202280)

All lanes : Anti-CDC42 antibody [M430] (ab202280) at 1/500 dilution

Lane 1 : Jurkat cell lysate
Lane 2 : mouse brain lysate
Lane 3 : Recombiant full length rat Cdc42 protein

Predicted band size: 21 kDa



Immunocytochemistry/ Immunofluorescence - Anti-CDC42 antibody [M430] (ab202280)

Immunofluorescence analysis of paraformaldehyde-fixed rat A7r5 cells, labeling CDC42 using ab202280 at a 1/200 dilution, in the absence (left, black protein block) or presence (right, red image) of full length Cdc42 recombinant protein. Goat anti-mouse conjugated to DyLight® 594 was used as secondary antibody.

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