

Product datasheet

Anti-ROCK2 antibody [EPR7141(B)] ab125025

KO VALIDATED Recombinant RabMAb

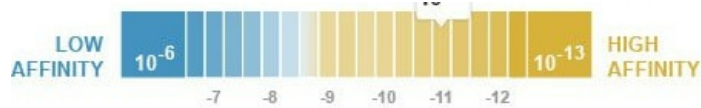
★★★★☆ 4 Abreviews 39 References 8 Images

Overview

Product name	Anti-ROCK2 antibody [EPR7141(B)]
Description	Rabbit monoclonal [EPR7141(B)] to ROCK2
Host species	Rabbit
Tested applications	Suitable for: WB, ICC/IF Unsuitable for: IHC-P
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide within Human ROCK2 (C terminal). The exact sequence is proprietary.
Positive control	HepG2, A549, HeLa, HEK293, L6, RAW264.7 and A673 cell lysates; Human kidney tissue, Mouse and Rat brain tissue lysate.
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> <p>We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.</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. Avoid freeze / thaw cycle.
Dissociation constant (K_D)	K _D = 8.70 x 10 ⁻¹¹ M



[Learn more about K_D](#)

Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: PBS, 0.14% BSA, 40% Glycerol (glycerin, glycerine)
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR7141(B)
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab125025 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	★★★★★ (3)	1/10000 - 1/50000. Detects a band of approximately 161 kDa (predicted molecular weight: 161 kDa).
ICC/IF		1/100 - 1/250.

Application notes Is unsuitable for IHC-P.

Target

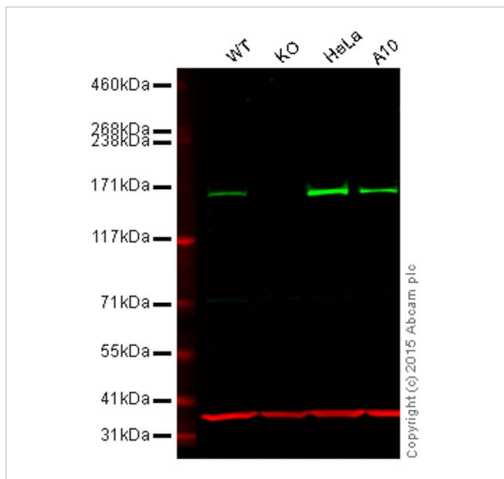
Function Regulates the assembly of the actin cytoskeleton. Promotes formation of stress fibers and of focal adhesion complexes. Plays a role in smooth muscle contraction.

Sequence similarities Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. Contains 1 AGC-kinase C-terminal domain. Contains 1 PH domain. Contains 1 phorbol-ester/DAG-type zinc finger. Contains 1 protein kinase domain. Contains 1 REM (Hr1) repeat.

Post-translational modifications Phosphorylated upon DNA damage, probably by ATM or ATR.

Cellular localization Cytoplasm. Cell membrane. Cytoplasmic, and associated with actin microfilaments and the plasma membrane.

Images



Western blot - Anti-ROCK2 antibody [EPR7141(B)] (ab125025)

Lane 1: Wild-type HAP1 cell lysate (20 µg)

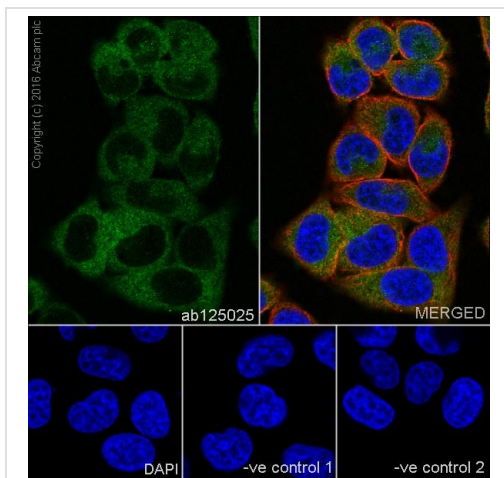
Lane 2: ROCK2 knockout HAP1 cell lysate (20 µg)

Lane 3: HeLa cell lysate (20 µg)

Lane 4: A10 cell lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green). Green - ab125025 observed at 165 kDa. Red - loading control, **ab8245**, observed at 37 kDa.

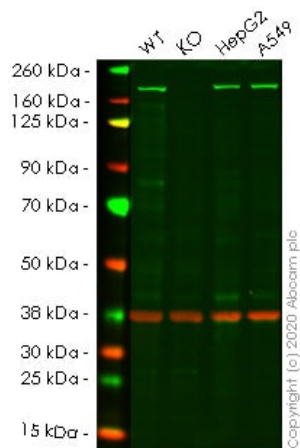
ab125025 was shown to specifically react with ROCK2 when ROCK2 knockout samples were used. Wild-type and ROCK2 knockout samples were subjected to SDS-PAGE. ab125025 and **ab8245** (loading control to GAPDH) were diluted 1/10 000 and 1/2000 respectively and incubated overnight at 4°C. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at 1/10,000 dilution for 1 h at room temperature before imaging.



Immunocytochemistry/ Immunofluorescence - Anti-ROCK2 antibody [EPR7141(B)] (ab125025)

Immunocytochemistry/Immunofluorescence analysis of HeLa (human cervix adenocarcinoma) cells labelling ROCK2 with purified ab125025 at 1/250. Cells were fixed with 4% Paraformaldehyde and permeabilized with 0.1% Triton X-100. **ab150077**, Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody. Cells were counter-stained with **ab7291** anti-Tubulin (mouse mAb) primary and **ab150120** (AlexaFluor®594 goat anti-mouse) secondary both at 1/1000 dilution. Nuclei were counterstained with DAPI (blue).

For negative control 1, rabbit primary antibody and **ab150120** (anti-mouse) secondary antibody were used. For negative control 2, **ab7291** (mouse primary antibody) was used followed by **ab150077** (anti-rabbit secondary antibody).



Western blot - Anti-ROCK2 antibody [EPR7141(B)]
(ab125025)

All lanes : Anti-ROCK2 antibody [EPR7141(B)] (ab125025) at
1/10000 dilution

Lane 1 : Wild-type HeLa cell lysate

Lane 2 : ROCK2 knockout HeLa cell lysate

Lane 3 : HepG2 cell lysate

Lane 4 : A549 cell lysate

Lysates/proteins at 20 µg per lane.

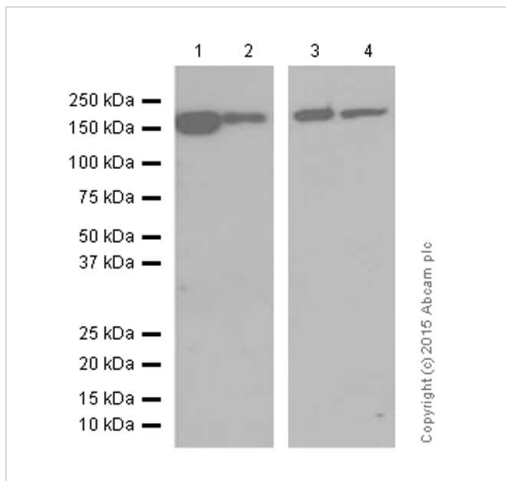
Performed under reducing conditions.

Predicted band size: 161 kDa

Observed band size: 175 kDa

Lanes 1-4: Merged signal (red and green). Green - ab125025 observed at 175 kDa. Red - Anti-GAPDH antibody [6C5] - Loading Control ([ab8245](#)) observed at 37 kDa.

ab125025 was shown to react with ROCK2 in wild-type HeLa cells in western blot. Loss of signal was observed when knockout cell line [ab265679](#) (knockout cell lysate [ab257643](#)) was used. Wild-type HeLa and ROCK2 knockout HeLa cell lysates were subjected to SDS-PAGE. Membrane was blocked for 1 hour at room temperature in 0.1% TBST with 3% non-fat dried milk. ab125025 and Anti-GAPDH antibody [6C5] - Loading Control ([ab8245](#)) overnight at 4°C at a 1 in 10000 dilution and a 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye®800CW) preadsorbed ([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye®680RD) preadsorbed ([ab216776](#)) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-ROCK2 antibody [EPR7141(B)] (ab125025)

All lanes : Anti-ROCK2 antibody [EPR7141(B)] (ab125025) at 1/50000 dilution

Lane 1 : HeLa whole cell lysate

Lane 2 : HEK293 whole cell lysate

Lane 3 : Mouse brain tissue lysate

Lane 4 : Rat brain tissue lysate

Lysates/proteins at 10 µg per lane.

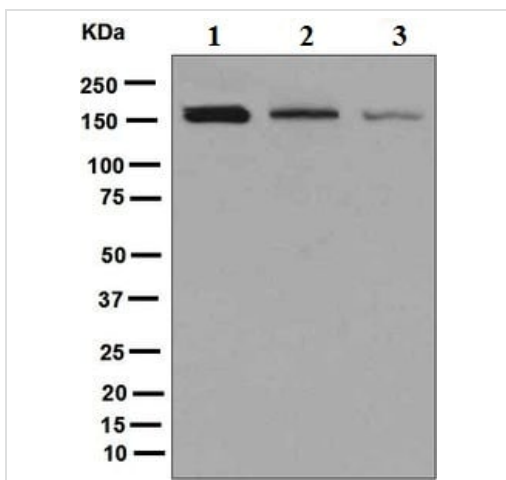
Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

Predicted band size: 161 kDa

Observed band size: 161 kDa

Blocking and Diluting buffer 5% NFDm/TBST



Western blot - Anti-ROCK2 antibody [EPR7141(B)] (ab125025)

All lanes : Anti-ROCK2 antibody [EPR7141(B)] (ab125025) at 1/10000 dilution (unpurified)

Lane 1 : Hela cell lysate

Lane 2 : L6 cell lysate

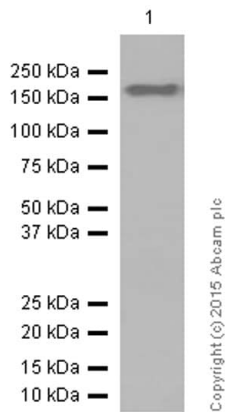
Lane 3 : A673 cell lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 161 kDa



Western blot - Anti-ROCK2 antibody [EPR7141(B)] (ab125025)

Anti-ROCK2 antibody [EPR7141(B)] (ab125025) at 1/10000 dilution + RAW264.7 whole cell lysate at 10 µg

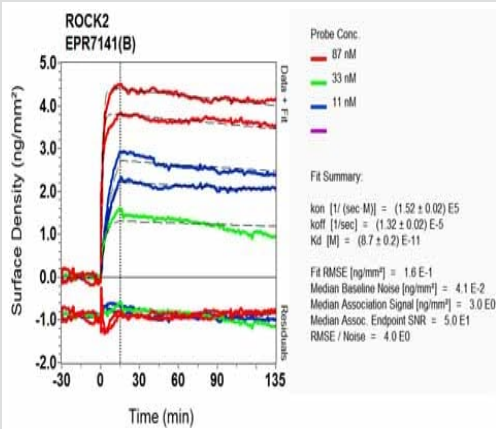
Secondary

Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

Predicted band size: 161 kDa

Observed band size: 161 kDa

Blocking and Diluting buffer 5% NFDM/TBST



O1-RD Scanning - Anti-ROCK2 antibody [EPR7141(B)] (ab125025)

Equilibrium dissociation constant (K_D)

Learn more about K_D

[Click here to learn more about \$K_D\$](#)

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-ROCK2 antibody [EPR7141(B)] (ab125025)

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

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