

Product datasheet

Anti-ROCK2 antibody [EPR7141(B)] ab125025

KO VALIDATED Recombinant RabMAb

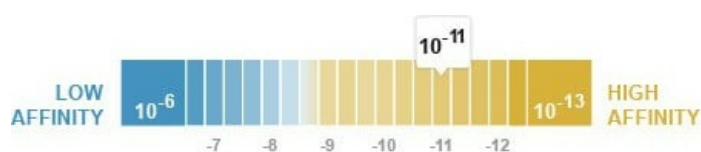
★★★★☆ 4 Abreviews 39 References 8 Images

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>

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
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	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.

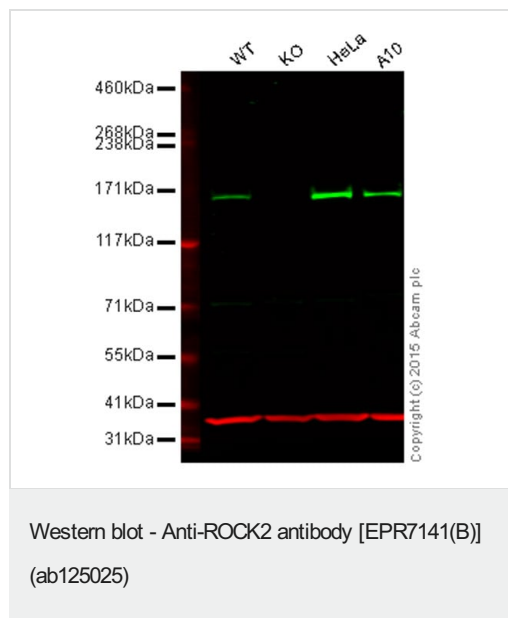
Application	Abreviews	Notes
WB	★★★★★ (3)	1/10000 - 1/50000. Detects a band of approximately 161 kDa (predicted molecular weight: 161 kDa).
ICC/IF		1/100 - 1/250.

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



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

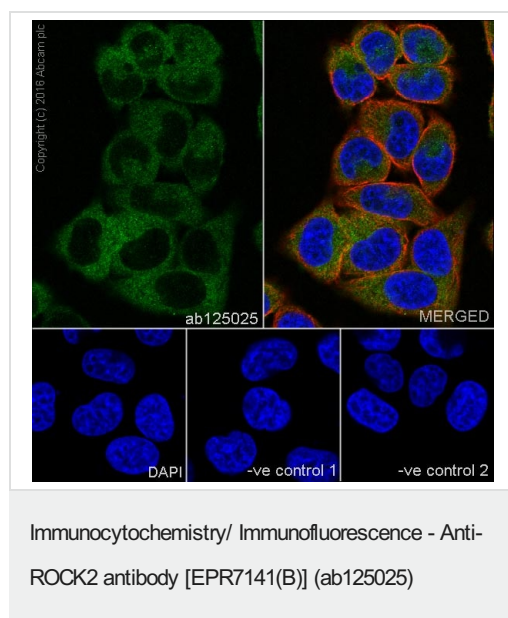
Lane 2: ROCK2 knockout HAP1 cell lysate (20 µg)

Lane 3: HeLa cell lysate (20 µg)

Lane 4: A10 cell lysate (20 µg)

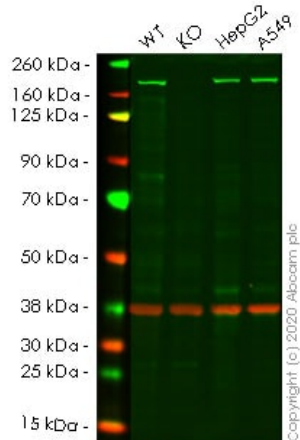
Lanes 1 - 4: Merged signal (red and green). Green - ab125025 observed at 165 kDa. Red - loading control, **ab8245**, observed at 37 kDa.

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 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.

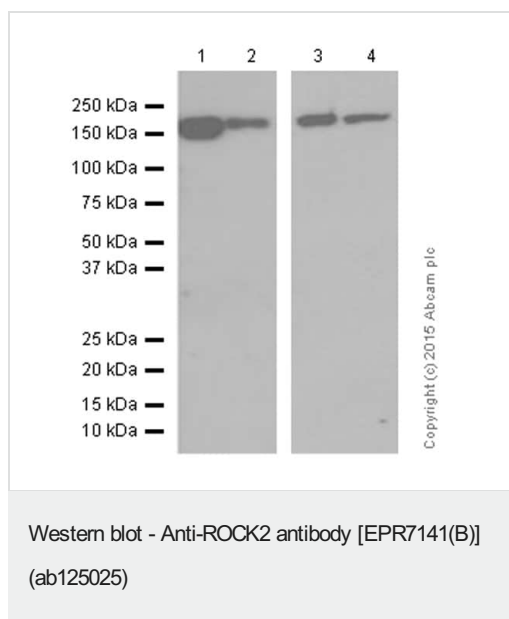
Performed under reducing conditions.

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.



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.

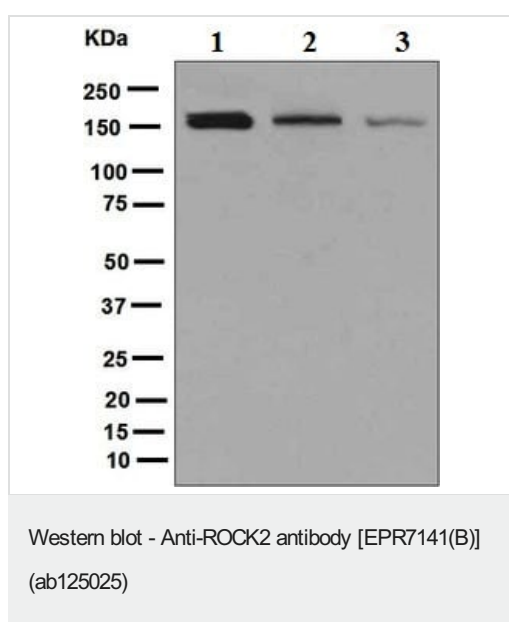
Secondary

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



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

Lane 1 : Hela cell lysate

Lane 2 : L6 cell lysate

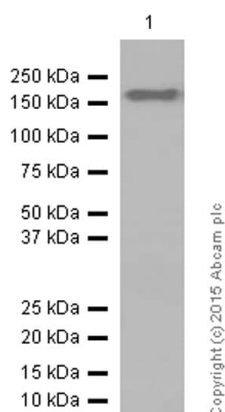
Lane 3 : A673 cell lysate

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

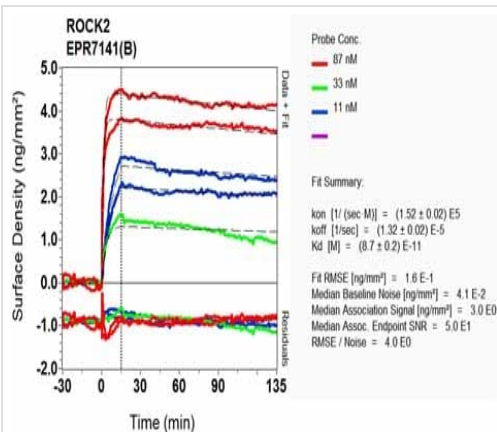
Secondary

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



BI-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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