


Product datasheet

Anti-RhoA (phospho S188) antibody ab41435

★★★★★ [9 Abreviews](#) [28 References](#) [2 Images](#)

Overview

Product name	Anti-RhoA (phospho S188) antibody
Description	Rabbit polyclonal to RhoA (phospho S188)
Host species	Rabbit
Specificity	Phospho-Ser188-RhoA specific. RhoA immunogen sequence not found in RhoB or RhoC proteins.
Tested applications	Suitable for: WB
Species reactivity	Reacts with: Human Predicted to work with: Rat 
Immunogen	Synthetic peptide corresponding to Human RhoA (phospho S188) conjugated to keyhole limpet haemocyanin. Database link: P06749
General notes	Do not aliquot.

Post-translational regulation of Rho activity has been shown specifically for RhoA. This Rho protein is phosphorylated in vitro on serine 188 by cAMP- and cGMP-dependent kinases (PKA and PKG). Ser188 phosphorylation enhances RhoGDI binding and inhibits RhoA-mediated stress fiber formation. Thus, Ser188 is an important site for negative regulation of RhoA activity.

The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at 4°C (up to 6 months). Store at -20°C.
Storage buffer	Preservative: 0.05% Sodium azide Constituents: PBS, 50% Glycerol, 0.1% BSA

Purity	Immunogen affinity purified
Primary antibody notes	Post-translational regulation of Rho activity has been shown specifically for RhoA. This Rho protein is phosphorylated in vitro on serine 188 by cAMP- and cGMP-dependent kinases (PKA and PKG). Ser188 phosphorylation enhances RhoGDI binding and inhibits RhoA-mediated stress fiber formation. Thus, Ser188 is an important site for negative regulation of RhoA activity.
Clonality	Polyclonal
Isotype	IgG

Applications

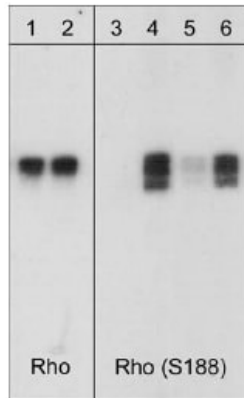
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab41435 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★★ (9)	1/1000. Predicted molecular weight: 22 kDa.

Target

Function	Regulates a signal transduction pathway linking plasma membrane receptors to the assembly of focal adhesions and actin stress fibers. Serves as a target for the yopT cysteine peptidase from <i>Yersinia pestis</i> , vector of the plague, and <i>Yersinia pseudotuberculosis</i> , which causes gastrointestinal disorders. May be an activator of PLCE1. Activated by ARHGEF2, which promotes the exchange of GDP for GTP.
Sequence similarities	Belongs to the small GTPase superfamily. Rho family.
Domain	The basic-rich region is essential for yopT recognition and cleavage.
Post-translational modifications	<p>Substrate for botulinum ADP-ribosyltransferase.</p> <p>Cleaved by yopT protease when the cell is infected by some <i>Yersinia</i> pathogens. This removes the lipid attachment, and leads to its displacement from plasma membrane and to subsequent cytoskeleton cleavage.</p> <p>AMPylation at Tyr-34 and Thr-37 are mediated by bacterial enzymes in case of infection by <i>H.somnus</i> and <i>V.parahaemolyticus</i>, 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.</p> <p>Ubiquitinated by the BCR(BACURD1) and BCR(BACURD2) E3 ubiquitin ligase complexes, leading to its degradation by the proteasome, thereby regulating the actin cytoskeleton and cell migration.</p>
Cellular localization	Cell membrane. Cytoplasm > cytoskeleton.

Images



Western blot - Anti-RhoA (phospho S188) antibody (ab41435)

Lanes 1-2 : anti-Rho

Lanes 3-6 : Anti-RhoA (phospho S188) antibody (ab41435) at 1/1000 dilution

Lane 1 : recombinant human RhoA GST fusion protein, unphosphorylated

Lane 2 : recombinant human RhoA GST fusion protein, phosphorylated with PKA

Lane 3 : recombinant human RhoA GST fusion protein, unphosphorylated

Lane 4 : recombinant human RhoA GST fusion protein, phosphorylated with PKA

Lane 5 : recombinant human RhoA GST fusion protein, phosphorylated with PKA

with RhoA (phospho S188) peptide

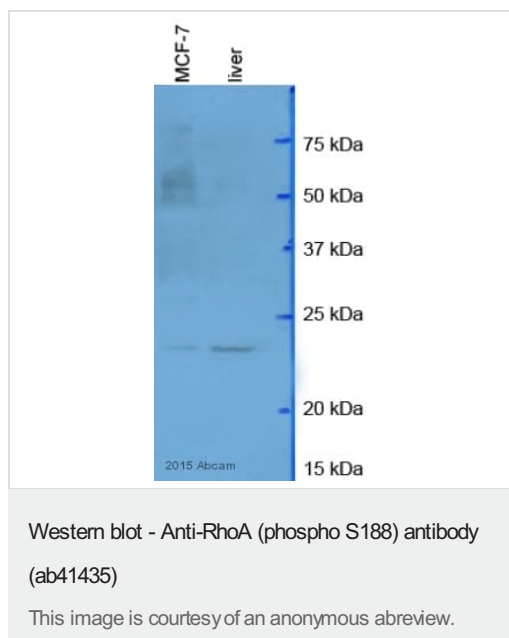
Lane 6 : recombinant human RhoA GST fusion protein, phosphorylated with PKA with non-specific phosphoserine peptide

Predicted band size: 22 kDa

Observed band size: 49 kDa

Membrane was incubated with diluted antibody in 5% non-fat milk, PBS, 0.04% Tween20 for 1 hour at room temperature.

A fusion protein was used in this western blot; hence the difference in molecular weight compared to predicted molecular weight.



All lanes : Anti-RhoA (phospho S188) antibody (ab41435) at 1/1000 dilution

Lane 1 : MCF7

Lane 2 : human liver nuclear tissue lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Polyclonal goat anti-rabbit HRP conjugate at 1/10000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 22 kDa

Observed band size: 22 kDa

Exposure time: 25 seconds

Blocking: 5% milk for 1 hour at 23°C

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