

Product datasheet

Anti-ROCK1 antibody - N-terminal ab156284

3 Images

Overview

Product name	Anti-ROCK1 antibody - N-terminal
Description	Rabbit polyclonal to ROCK1 - N-terminal
Host species	Rabbit
Specificity	ab156284 is predicted not to cross-react with other ROCK protein family members.
Tested applications	Suitable for: WB, ICC, ICC/IF
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide, corresponding to 15 amino acids near the N terminus of Human ROCK1 (NP_005397).
Positive control	293 cell lysate; 293 cells.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid repeated freeze / thaw cycles.
Storage buffer	Preservative: 0.02% Sodium azide Constituent: 99% PBS
Purity	Immunogen affinity purified
Purification notes	ab156284 is affinity chromatography purified via peptide column.
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab156284** 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 a concentration of 1 µg/ml. Predicted molecular weight: 158 kDa.

Application	Abreviews	Notes
ICC		Use a concentration of 10 µg/ml.
ICC/IF		Use a concentration of 20 µg/ml.

Target

Function

Protein kinase which is a key regulator of actin cytoskeleton and cell polarity. Involved in regulation of smooth muscle contraction, actin cytoskeleton organization, stress fiber and focal adhesion formation, neurite retraction, cell adhesion and motility via phosphorylation of DAPK3, GFAP, LIMK1, LIMK2, MYL9/MLC2, PFN1 and PPP1R12A. Phosphorylates FHOD1 and acts synergistically with it to promote SRC-dependent non-apoptotic plasma membrane blebbing. Phosphorylates JIP3 and regulates the recruitment of JNK to JIP3 upon UVB-induced stress. Acts as a suppressor of inflammatory cell migration by regulating PTEN phosphorylation and stability. Acts as a negative regulator of VEGF-induced angiogenic endothelial cell activation. Required for centrosome positioning and centrosome-dependent exit from mitosis. Plays a role in terminal erythroid differentiation. May regulate closure of the eyelids and ventral body wall by inducing the assembly of actomyosin bundles. Promotes keratinocyte terminal differentiation. Involved in osteoblast compaction through the fibronectin fibrillogenesis cell-mediated matrix assembly process, essential for osteoblast mineralization.

Tissue specificity

Detected in blood platelets.

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.

Domain

The C-terminal auto-inhibitory domain interferes with kinase activity. RHOA binding leads to a conformation change and activation of the kinase. Truncated ROCK1 is constitutively activated.

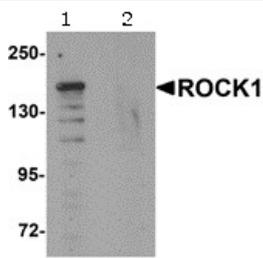
Post-translational modifications

Autophosphorylated on serine and threonine residues. Cleaved by caspase-3 during apoptosis. This leads to constitutive activation of the kinase and membrane blebbing.

Cellular localization

Cytoplasm. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome, centriole. Golgi apparatus membrane. Cell projection, bleb. Cytoplasm, cytoskeleton. Cell membrane. Cell projection, lamellipodium. Cell projection, ruffle. Associated with the mother centriole and an intercentriolar linker. Colocalizes with ITGB1BP1 and ITGB1 at the cell membrane predominantly in lamellipodia and membrane ruffles, but also in retraction fibers. Localizes at the cell membrane in an ITGB1BP1-dependent manner (By similarity). A small proportion is associated with Golgi membranes.

Images



Western blot - Anti-ROCK1 antibody - N-terminal (ab156284)

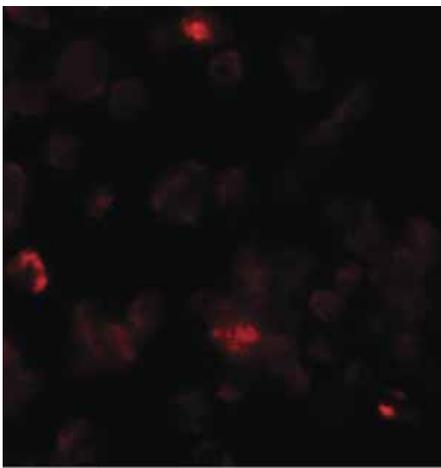
All lanes : Anti-ROCK1 antibody - N-terminal (ab156284) at 1 $\mu\text{g/ml}$

Lane 1 : 293 cell lysate

Lane 2 : 293 cell lysate with blocking peptide

Lysates/proteins at 15 μg per lane.

Predicted band size: 158 kDa



Immunocytochemistry/ Immunofluorescence - Anti-ROCK1 antibody - N-terminal (ab156284)

Immunofluorescence of ROCK1 in 293 cells with ab156284 at 20 $\mu\text{g/mL}$.



Immunocytochemistry - Anti-ROCK1 antibody - N-terminal (ab156284)

Immunocytochemical analysis of 293 cells labeling ROCK1 with ab156284 at 10 $\mu\text{g/ml}$.

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