

**ROCK1 Antibody**  
Rabbit mAb  
Catalog # AP90367

## Specification

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### ROCK1 Antibody - Product Information

Application	WB, IHC, FC, ICC, IP
Primary Accession	<a href="#">Q13464</a>
Reactivity	Rat
Clonality	Monoclonal
<b>Other Names</b>	
p160 ROCK-1; p160-ROCK; p160ROCK; PRO0435; Renal carcinoma antigen NY-REN-35; Rho kinase; Rho-associated protein kinase 1;	
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	158175 Da

### ROCK1 Antibody - Additional Information

Dilution	WB~~1:1000 IHC~~1:100~500 FC~~1:10~50 ICC~~N/A IP~~N/A
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human ROCK1
Description	ROCK1 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.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

### ROCK1 Antibody - Protein Information

**Name** ROCK1**Function**

Protein kinase which is a key regulator of the actin cytoskeleton and cell polarity (PubMed:<a href="http://www.uniprot.org/citations/10436159" target="\_blank">10436159</a>, PubMed:<a href="http://www.uniprot.org/citations/10652353" target="\_blank">10652353</a>, PubMed:<a href="http://www.uniprot.org/citations/11018042" target="\_blank">11018042</a>, PubMed:<a href="http://www.uniprot.org/citations/11283607" target="\_blank">11283607</a>, PubMed:<a href="http://www.uniprot.org/citations/17158456" target="\_blank">17158456</a>, PubMed:<a href="http://www.uniprot.org/citations/18573880" target="\_blank">18573880</a>, PubMed:<a href="http://www.uniprot.org/citations/19131646" target="\_blank">19131646</a>, PubMed:<a href="http://www.uniprot.org/citations/8617235" target="\_blank">8617235</a>, PubMed:<a href="http://www.uniprot.org/citations/9722579" target="\_blank">9722579</a>). 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, TPPP, PFN1 and PPP1R12A (PubMed:<a href="http://www.uniprot.org/citations/10436159" target="\_blank">10436159</a>, PubMed:<a href="http://www.uniprot.org/citations/10652353" target="\_blank">10652353</a>, PubMed:<a href="http://www.uniprot.org/citations/11018042" target="\_blank">11018042</a>, PubMed:<a href="http://www.uniprot.org/citations/11283607" target="\_blank">11283607</a>, PubMed:<a href="http://www.uniprot.org/citations/17158456" target="\_blank">17158456</a>, PubMed:<a href="http://www.uniprot.org/citations/18573880" target="\_blank">18573880</a>, PubMed:<a href="http://www.uniprot.org/citations/19131646" target="\_blank">19131646</a>, PubMed:<a href="http://www.uniprot.org/citations/23093407" target="\_blank">23093407</a>, PubMed:<a href="http://www.uniprot.org/citations/23355470" target="\_blank">23355470</a>, PubMed:<a href="http://www.uniprot.org/citations/8617235" target="\_blank">8617235</a>, PubMed:<a href="http://www.uniprot.org/citations/9722579" target="\_blank">9722579</a>). Phosphorylates FHOD1 and acts synergistically with it to promote SRC-dependent non-apoptotic plasma membrane blebbing (PubMed:<a href="http://www.uniprot.org/citations/18694941" target="\_blank">18694941</a>). Phosphorylates JIP3 and regulates the recruitment of JNK to JIP3 upon UVB-induced stress (PubMed:<a href="http://www.uniprot.org/citations/19036714" target="\_blank">19036714</a>). Acts as a suppressor of inflammatory cell migration by regulating PTEN phosphorylation and stability (By similarity). Acts as a negative regulator of VEGF-induced angiogenic endothelial cell activation (PubMed:<a href="http://www.uniprot.org/citations/19181962" target="\_blank">19181962</a>). Required for centrosome positioning and centrosome-dependent exit from mitosis (By similarity). Plays a role in terminal erythroid differentiation (PubMed:<a href="http://www.uniprot.org/citations/21072057" target="\_blank">21072057</a>). Inhibits podocyte motility via regulation of actin cytoskeletal dynamics and phosphorylation of CFL1 (By similarity). Promotes keratinocyte terminal differentiation (PubMed:<a href="http://www.uniprot.org/citations/19997641" target="\_blank">19997641</a>). Involved in osteoblast compaction through the fibronectin fibrillogenesis cell-mediated matrix assembly process, essential for osteoblast mineralization (By similarity). May regulate closure of the eyelids and ventral body wall by inducing the assembly of actomyosin bundles (By similarity).

**Cellular Location**

Cytoplasm. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome, centriole {ECO:0000250|UniProtKB:P70335}. Golgi apparatus membrane; Peripheral membrane protein. Cell projection, bleb. Cytoplasm, cytoskeleton {ECO:0000250|UniProtKB:P70335}. Cell membrane {ECO:0000250|UniProtKB:P70335}. Cell projection, lamellipodium {ECO:0000250|UniProtKB:P70335}. Cell projection, ruffle {ECO:0000250|UniProtKB:P70335}. Note=A small proportion is associated with Golgi membranes (PubMed:12773565). Associated with the mother centriole and an intercentriolar linker (By similarity). Colocalizes with ITGB1BP1 and ITGB1 at the cell membrane predominantly in lamellipodia and membrane ruffles, but also in retraction fibers (By similarity). Localizes at the cell membrane in an ITGB1BP1-dependent manner (By similarity). {ECO:0000250|UniProtKB:P70335, ECO:0000269|PubMed:12773565}

### Tissue Location

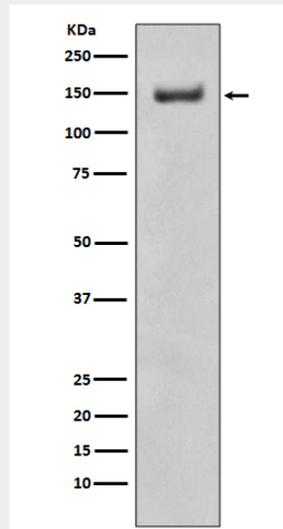
Detected in blood platelets.

### ROCK1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### ROCK1 Antibody - Images



Western blot analysis of ROCK1 expression in Ramos cell lysate.