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KD-Validated Anti-ROCK1 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1418

Specification

KD-Validated Anti-ROCK1 Rabbit Monoclonal Antibody - Product Information

Application	**WB, FC, ICC**
Primary Accession	Q13464
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 158 kDa; observed, 158 kDa KDa**
Gene Name	**ROCK1**
Aliases	**ROCK1; Rho Associated Coiled-Coil Containing Protein Kinase 1; P160ROCK; Renal Carcinoma Antigen NY-REN-35; Rho-Associated ProteinKinase 1; P160 ROCK-1; EC 2.7.11.1; ROCK-I; Rho-Associated,Coiled-Coil-Containing Protein Kinase 1; Rho-Associated, Coiled-Coil-Containing Protein Kinase I; EC 2.7.11**
Immunogen	**A synthesized peptide derived from human ROCK1**

KD-Validated Anti-ROCK1 Rabbit Monoclonal Antibody - Additional Information

Gene ID	**6093**

Other Names
Rho-associated protein kinase 1, 2.7.11.1, Renal carcinoma antigen NY-REN-35, Rho-associated, coiled-coil-containing protein kinase 1, Rho-associated, coiled-coil-containing protein kinase I, ROCK-I, p160 ROCK-1, p160ROCK, ROCK1

KD-Validated Anti-ROCK1 Rabbit Monoclonal Antibody - Protein Information

Name ROCK1

Function
Protein kinase which is a key regulator of the actin cytoskeleton and cell polarity (PubMed:10436159, PubMed:10652353, PubMed:11018042, PubMed:11283607, PubMed:17158456, PubMed:18573880, PubMed:19131646, PubMed:8617235, PubMed:<a

href="http://www.uniprot.org/citations/9722579" target="_blank">9722579). 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:10436159, PubMed:10652353, PubMed:11018042, PubMed:11283607, PubMed:17158456, PubMed:18573880, PubMed:19131646, PubMed:23093407, PubMed:23355470, PubMed:8617235, PubMed:9722579). Phosphorylates FHOD1 and acts synergistically with it to promote SRC-dependent non-apoptotic plasma membrane blebbing (PubMed:18694941). Phosphorylates JIP3 and regulates the recruitment of JNK to JIP3 upon UVB-induced stress (PubMed:19036714). 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:19181962). Required for centrosome positioning and centrosome-dependent exit from mitosis (By similarity). Plays a role in terminal erythroid differentiation (PubMed:21072057). Inhibits podocyte motility via regulation of actin cytoskeletal dynamics and phosphorylation of CFL1 (By similarity). Promotes keratinocyte terminal differentiation (PubMed:19997641). 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.

KD-Validated Anti-ROCK1 Rabbit Monoclonal Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot

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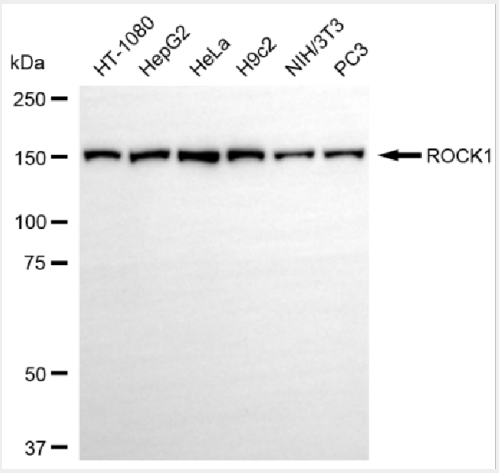
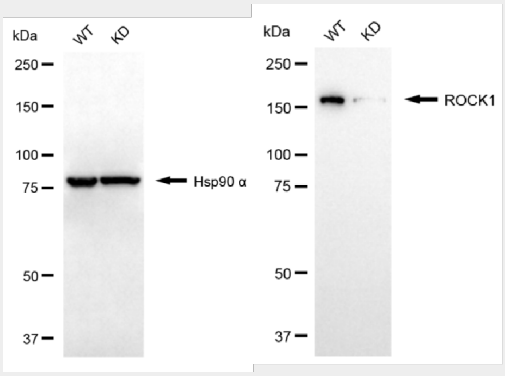
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

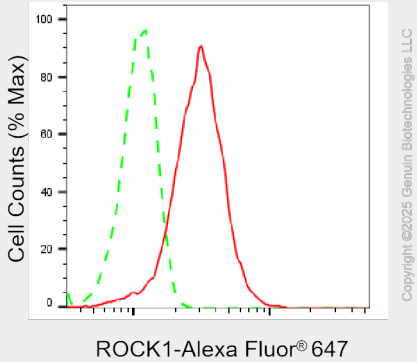
KD-Validated Anti-ROCK1 Rabbit Monoclonal Antibody - Images



Western blotting analysis using anti-ROCK1 antibody (Cat#AGI1418). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-ROCK1 antibody (Cat#AGI1418, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-ROCK1 antibody (Cat#AGI1418). ROCK1 expression in wild-type (WT) and ROCK1 knockdown (KD) 293T cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-ROCK1 antibody (Cat#AGI1418, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



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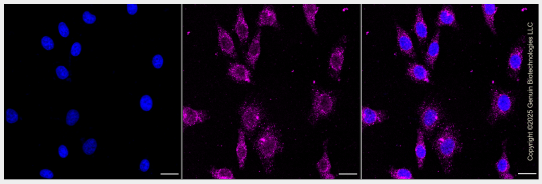
Flow cytometric analysis of ROCK1 expression in HepG2 cells using anti-ROCK1 antibody (Cat#AGI1418, 1:2,000). Green, isotype control; red, ROCK1.



Immunocytochemical staining of HepG2 cells with anti-ROCK1 antibody (Cat#AGI1418, 1:1,000). Nuclei were stained blue with DAPI; ROCK1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20 µm.