

ARG56252 anti-ROCK1 antibody

Package: 100 µl, 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes ROCK1
Tested Reactivity	Hu, Ms
Tested Application	IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	ROCK1
Species	Human
Immunogen	Recombinant protein of Human ROCK1
Conjugation	Un-conjugated
Alternate Names	Rho-associated, coiled-coil-containing protein kinase I; p160ROCK; p160 ROCK-1; ROCK-I; EC 2.7.11.1; Renal carcinoma antigen NY-REN-35; P160ROCK; Rho-associated protein kinase 1; Rho-associated, coiled-coil-containing protein kinase 1

Application Instructions

Application table	Application	Dilution
	IHC-P	1:50 - 1:100
	WB	1:500 - 1:1000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

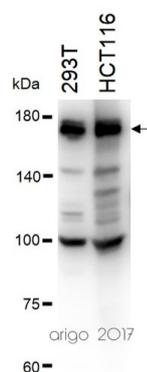
Properties

Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	PBS (pH 7.3), 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% sodium azide
Stabilizer	50% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

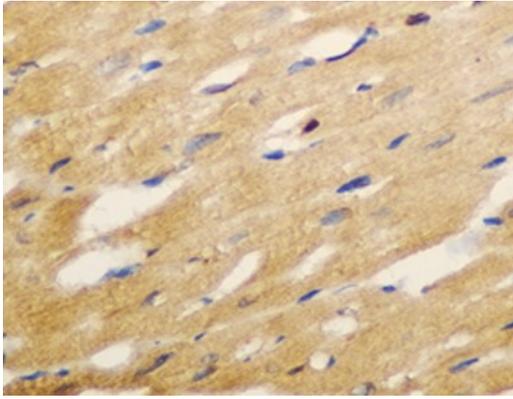
Database links	GeneID: 19877 Mouse GeneID: 6093 Human Swiss-port # P70335 Mouse Swiss-port # Q13464 Human
Gene Symbol	ROCK1
Gene Full Name	Rho-associated, coiled-coil containing protein kinase 1
Background	This gene encodes a protein serine/threonine kinase that is activated when bound to the GTP-bound form of Rho. The small GTPase Rho regulates formation of focal adhesions and stress fibers of fibroblasts, as well as adhesion and aggregation of platelets and lymphocytes by shuttling between the inactive GDP-bound form and the active GTP-bound form. Rho is also essential in cytokinesis and plays a role in transcriptional activation by serum response factor. This protein, a downstream effector of Rho, phosphorylates and activates LIM kinase, which in turn, phosphorylates cofilin, inhibiting its actin-depolymerizing activity. A pseudogene, related to this gene, is also located on chromosome 18. [provided by RefSeq, Aug 2015]
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. [UniProt]
Calculated Mw	158 kDa
PTM	Autophosphorylated on serine and threonine residues. Cleaved by caspase-3 during apoptosis. This leads to constitutive activation of the kinase and membrane blebbing.

Images



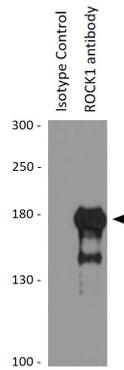
ARG56252 anti-ROCK1 antibody WB image

Western blot: 30 µg of 293T and HCT116 cell lysates stained with ARG56252 anti-ROCK1 antibody at 1:500 dilution.



ARG56252 anti-ROCK1 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Rat heart stained with ARG56252 anti-ROCK1 antibody at 1:100 dilution.



ARG56252 anti-ROCK1 antibody IP image

Immunoprecipitation: 200 μ g extracts of 293T cells immunoprecipitated and stained with ARG56252 anti-ROCK1 antibody at 1:1000 dilution.