Datasheet for ABIN707771

anti-ROCK1 antibody (pSer456, pThr455)

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Overview

Quantity:	100 µL
Target:	ROCK1
Binding Specificity:	pSer456, pThr455
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This ROCK1 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunofluorescence (Cultured Cells) (IF (cc)), Immunofluorescence (Paraffin-embedded Sections) (IF (p)), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Flow Cytometry (FACS), Immunohistochemistry (Frozen Sections) (IHC (fro))

Product Details

Immunogen:	KLH conjugated synthetic phosphopeptide derived from human ROCK1 around the phosphorylation site of Thr455/Ser456
Isotype:	IgG
Cross-Reactivity:	Human, Mouse, Rat
Predicted Reactivity:	Dog,Pig,Horse,Rabbit
Purification:	Purified by Protein A.

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Target Details

Target:	ROCK1
Alternative Name:	ROCK1 + (ROCK1 Products)
Background:	Synonyms: ROCK-I, P16ROCK, Rho-associated protein kinase 1, Renal carcinoma antigen NY-REN-35, Rho-associated, coiled-coil-containing protein kinase 1, Rho-associated, coiled-coil-containing protein kinase I, p16 ROCK-1, ROCK1 Background: 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.
Gene ID:	6093
UniProt:	Q13464
Pathways:	Microtubule Dynamics, WNT Signaling, M Phase, Maintenance of Protein Location, Signaling Events mediated by VEGFR1 and VEGFR2, Thromboxane A2 Receptor Signaling

Application Details

Application Notes:	WB 1:300-5000
	ELISA 1:500-1000
	FCM 1:20-100
	IHC-P 1:200-400
	IHC-F 1:100-500
	IF(IHC-P) 1:50-200
	IF(IHC-F) 1:50-200
	IF(ICC) 1:50-200

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Application Details

Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	1 µg/µL
Buffer:	0.01M TBS(pH 7.4) with 1 % BSA, 0.02 % Proclin300 and 50 % Glycerol.
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.
Expiry Date:	12 months

Publications

Product cited in:	Lin, Chang, Chen, Shih: "RhoA/ROCK1 regulates Avian Reovirus S1133-induced switch from autophagy to apoptosis." in: **BMC veterinary research**, Vol. 11, pp. 103, (2015) (PubMed). Choi, Park, Kim, Park, Lee, Choi: "GM-CSF reduces expression of chondroitin sulfate proteoglycan (CSPG) core proteins in TGF-β-treated primary astrocytes." in: **BMB reports**, Vol. 47, Issue 12, pp. 679-84, (2015) (PubMed). Wang, Zhang, Wang, Zhang, Mao, Zhuang, Tang, Luo, Zhou, Zhang: "Vascular endothelial growth factor stimulates endothelial differentiation from mesenchymal stem cells via Rho/myocardin-related transcription factor--a signaling pathway." in: **The international journal of biochemistry & cell biology**, Vol. 45, Issue 7, pp. 1447-56, (2013) (PubMed).

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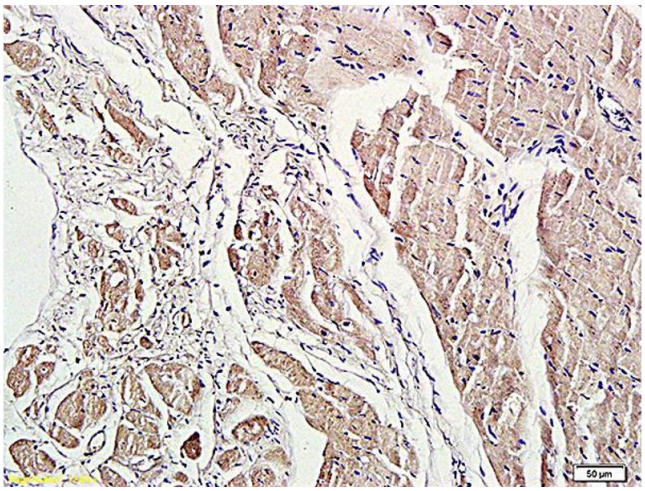
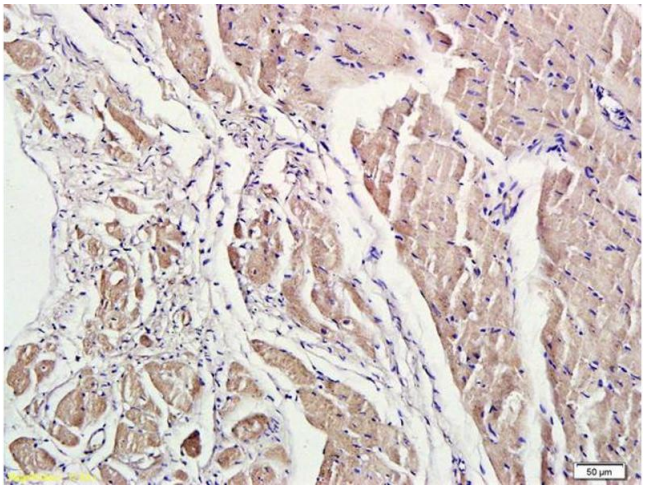


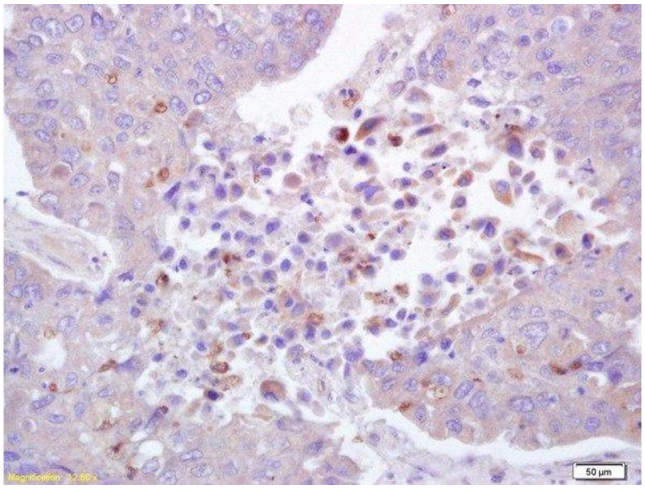
Immunohistochemistry

Image 1. Formalin-fixed and paraffin embedded human lung carcinoma labeled with Anti-phospho-ROCK1(Thr455/Ser456) Polyclonal Antibody, Unconjugated (ABIN707771) at 1:200 followed by conjugation to the secondary antibody and DAB staining.



Immunohistochemistry

Image 2. Formalin-fixed and paraffin embedded rat heart labeled with Anti-phospho-ROCK1(Thr455/Ser456) Polyclonal Antibody, Unconjugated (ABIN707771) at 1:200 followed by conjugation to the secondary antibody and DAB staining.



Immunohistochemistry (Paraffin-embedded Sections)

Image 3. Formalin-fixed and paraffin embedded human lung carcinoma labeled with Anti-phospho-ROCK1(Thr455/Ser456) Polyclonal Antibody, Unconjugated at 1:200 followed by conjugation to the secondary antibody and DAB staining.

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