




Rabbit Anti-phospho-ROCK1 (Thr455+Ser456) antibody

SL4630R

Product Name:	phospho-ROCK1 (Thr455+Ser456)
Chinese Name:	磷酸化Rho相关蛋白激酶1抗体
Alias:	p-ROCK1(Thr455/Ser456); p160 ROCK1; p160ROCK; Renal carcinoma antigen NY REN 35; Rho associated coiled coil containing protein kinase 1; Rho associated protein kinase 1; Rho-associated coiled-coil containing protein kinase 1; ROCK1_HUMAN.
文献引用  :	<p>Specific References(2) SL4630R has been referenced in 2 publications.</p> <p>[IF=4.15] Wang, Nan, et al. "Vascular endothelial growth factor stimulates endothelial differentiation from mesenchymal stem cells via Rho/myocardin-related transcription factor-A signaling pathway." The International Journal of Biochemistry & Cell Biology (2013). WB;Rat. PubMed:23624342</p> <p>[IF=1.74] Lin, Ping-Yuan, et al. "RhoA/ROCK1 regulates Avian Reovirus S1133-induced switch from autophagy to apoptosis." BMC veterinary research 11.1 (2015): 103. WB; PubMed:25944062</p>
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Horse,Rabbit,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=1ug/TestIF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	158kDa

Cellular localization:	cytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthesised phosphopeptide derived from human ROCK1 around the phosphorylation site of Thr455/Ser456:CR(p-T)(p-S)N
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	<p>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. [provided by RefSeq].</p> <p>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.</p> <p>Subunit: Homodimer. Interacts with RHOB, RHOC, MYLC2B and PTEN (By similarity). Interacts with RHOA (activated by GTP), CHORDC1, DAPK3, GEM, JIP3, RHOE, PPP1R12A, PFN1, LIMK1, LIMK2 and TSG101. Interacts with FHOD1 in a Src-dependent manner.</p> <p>Subcellular Location: Cytoplasm. Cytoplasm, cytoskeleton, centrosome, centriole (By similarity). Golgi apparatus membrane; Peripheral membrane protein. Cell projection, bleb.</p>

Note=Associated with the mother centriole and an intercentriolar linker (By similarity). A small proportion is associated with Golgi membranes.

Tissue Specificity:

Detected in blood platelets.

Post-translational modifications:

Autophosphorylated on serine and threonine residues. Phosphorylated upon DNA damage, probably by ATM or ATR.

Cleaved by caspase-3 during apoptosis. This leads to constitutive activation of the kinase and membrane blebbing.

Similarity:

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.

SWISS:

Q13464

Gene ID:

6093

Database links:

[Entrez Gene: 6093](#)Human

[Entrez Gene: 19877](#)Mouse

[Entrez Gene: 81762](#)Rat

[Omim: 601702](#)Human

[SwissProt: Q8MIT6](#)Cow

[SwissProt: Q13464](#)Human

[SwissProt: P70335](#)Mouse

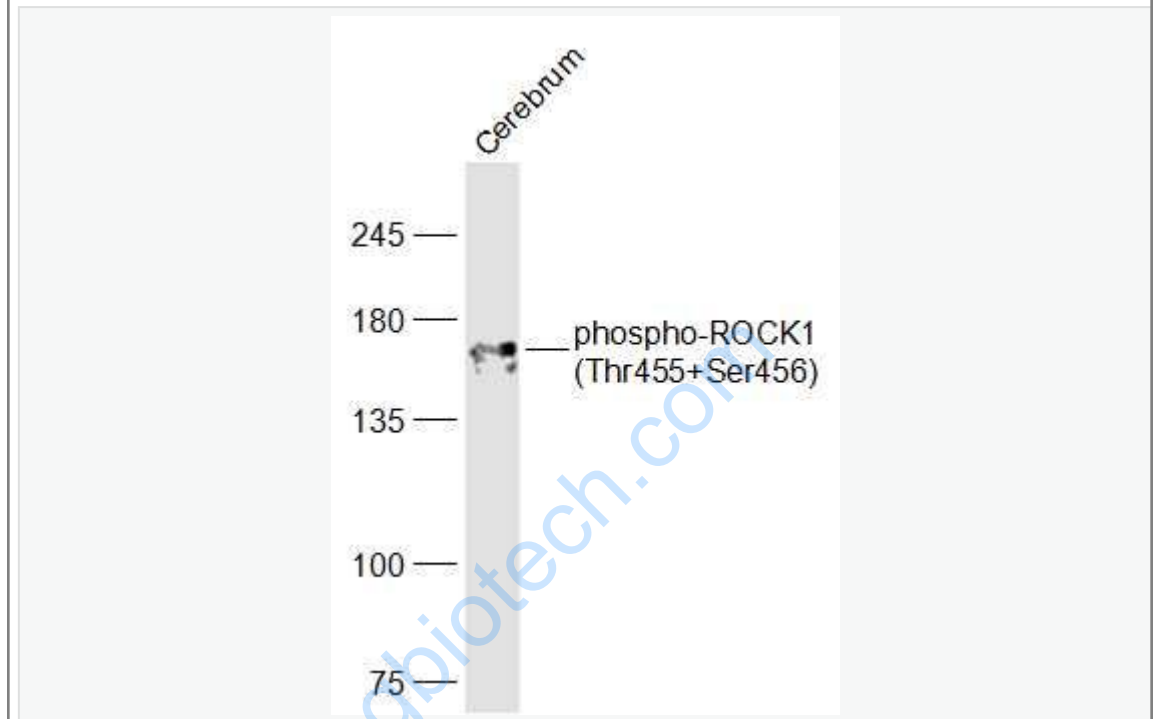
[SwissProt: Q63644](#)Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

ROCK1也是丝/苏氨酸激酶的一种,可调节cell factor, 促进平滑肌收缩和肌动蛋白的形成,因此又称:含有卷曲螺旋的蛋白激酶。目前主要用于Tumour浸润、转移方面的研究。

Picture:



Sample:

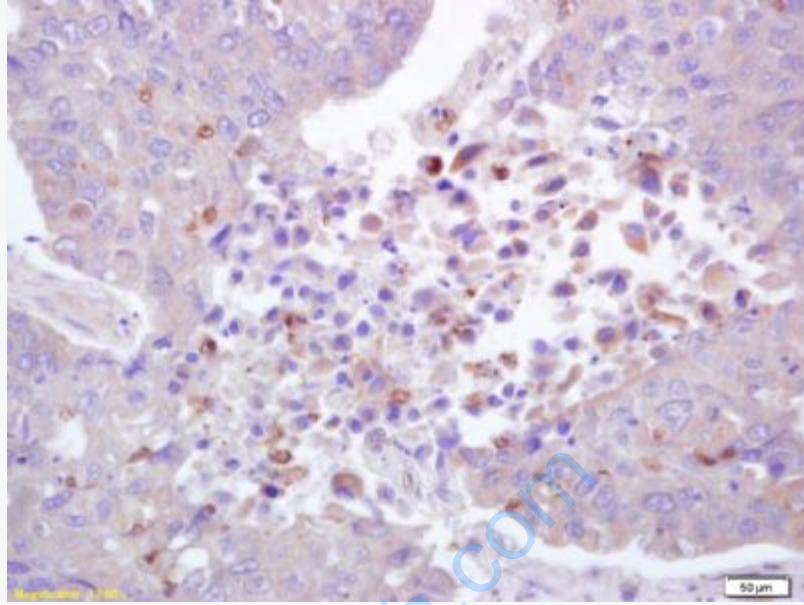
Cerebrum (Mouse) Lysate at 40 ug

Primary: Anti-phospho-ROCK1(Thr455+Ser456) (SL4630R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 158 kD

Observed band size: 158 kD

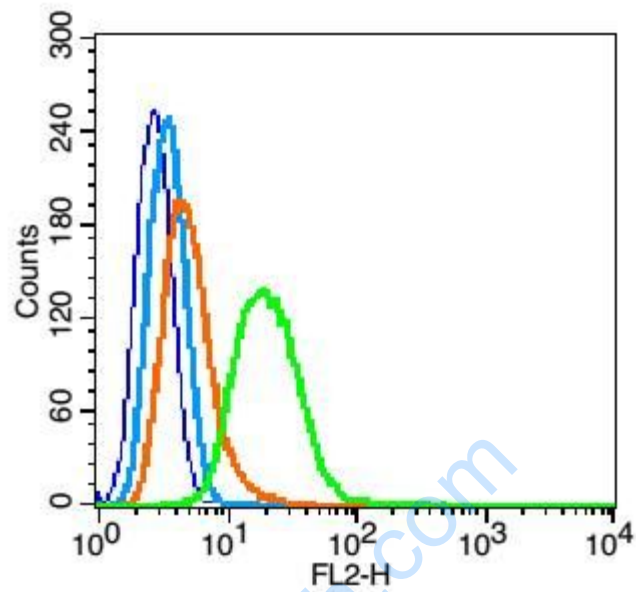


Tissue/cell: human lung carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-phospho-ROCK1(Thr455/Ser456) Polyclonal Antibody,

Unconjugated(SL4630R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Blank control(blue): HeLa (fixed with 2% paraformaldehyde (10 min) , then permeabilized with 90% ice-cold methanol for 30 min on ice).

Primary Antibody:Rabbit Anti- phospho-ROCK1(Thr455+Ser456) antibody(SL4630R), Dilution:1 μ g in 100 μ L 1X PBS containing 0.5% BSA;

Isotype Control Antibody: Rabbit IgG(orange) ,used under the same conditions);

Secondary Antibody: Goat anti-rabbit IgG-PE(white blue), Dilution: 1:200 in 1 X PBS containing 0.5% BSA.