
Product Name: Rock-1 Rabbit Polyclonal Antibody**Catalog #: APRab17313**

For research use only.

Summary

Description	Rabbit polyclonal Antibody
Host	Rabbit
Application	WB,IHC,ICC/IF,ELISA
Reactivity	Human,Mouse,Rat,Monkey
Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Concentration	1mg/ml
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:10000-1:20000
Molecular Weight	158kDa

Antigen Information

Gene Name	ROCK1 ROCK1; 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; ROCK-I; p160 ROCK-1; p160ROCK
Alternative Names	
Gene ID	6093.0
SwissProt ID	Q13464
Immunogen	The antiserum was produced against synthesized peptide derived from human Rock-1. AA range:262-311

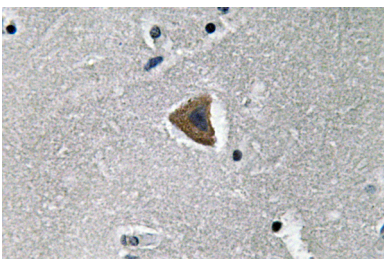
Background

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],catalytic activity:ATP + a protein = ADP + a phosphoprotein.,domain:The C-terminal auto-inhibitory domain interferes with kinase activity. RHOA binding leads to a conformation change and activation of the kinase. Truncated ROCK1 is constitutively activated.,enzyme regulation:Activated by RHOA binding.,function:Protein kinase that phosphorylates a large number of important signaling proteins, and thereby regulates the assembly of the actin cytoskeleton, cell migration, invasiveness of tumor cells, smooth muscle contraction and neurite outgrowth. Necessary for apoptotic membrane blebbing. Plays a role in smooth muscle contraction. Required for centromere positioning and centromere-dependent exit from mitosis.,miscellaneous:Inhibited by Y-27632.,PTM:Autophosphorylated on serine and threonine residues. Phosphorylated upon DNA damage, probably by ATM or ATR.,PTM: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.,similarity:Contains 1 AGC-kinase C-terminal domain.,similarity:Contains 1 PH domain.,similarity:Contains 1 phorbol-ester/DAG-type zinc finger.,similarity:Contains 1 protein kinase domain.,similarity:Contains 1 REM (Hr1) repeat.,subcellular location:Associated with the mother centriole and an intercentriolar linker (By similarity). A small proportion is associated with Golgi membranes.,subunit:Binds RHOA (activated by GTP). Interacts with ADD1, GEM, RHOB, RHOC, MYLC2B and VIM (By similarity). Binds RHOE, PPP1R12A, LIMK1 and LIMK2. Interacts with TSG101.,tissue specificity:Detected in blood platelets.,

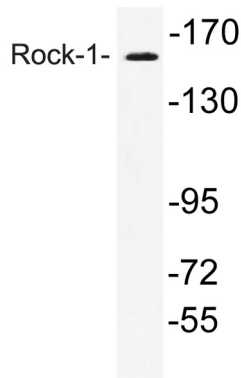
Research Area

Chemokine;Vascular smooth muscle contraction;WNT;WNT-T CELLTGF-beta;Axon guidance;Focal adhesion;Leukocyte transendothelial migration;Regulates Actin and Cytoskeleton;Pathogenic Escherichia coli infection;

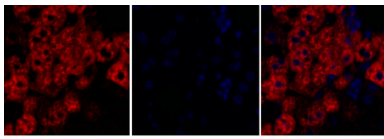
Image Data



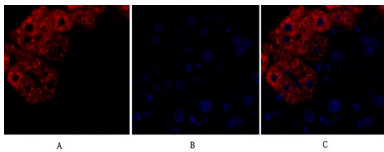
Immunohistochemistry analysis of Rock-1 antibody in paraffin-embedded human brain tissue.



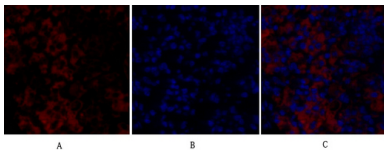
Western blot analysis of lysate from COS7 cell, using Rock-1 antibodies.



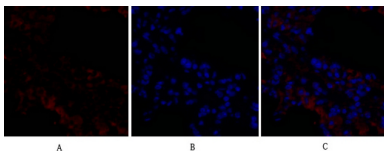
Immunofluorescence analysis of mouse-liver tissue. 1, Rock-1 Polyclonal Antibody (red) was diluted at 1:200 (4°C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min). 3, Picture B: DAPI (blue) 10min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B



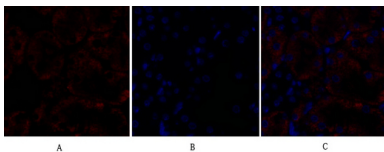
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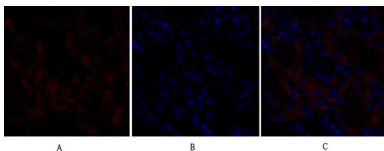
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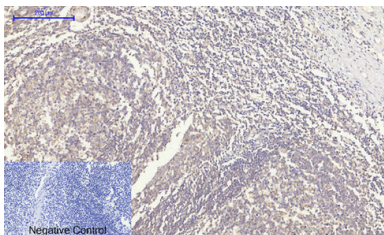
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Immunofluorescence analysis of mouse-kidney tissue. 1, Rock-1 Polyclonal Antibody (red) was diluted at 1:200 (4°C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min). 3, Picture B: DAPI (blue) 10min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B



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Immunohistochemical analysis of paraffin-embedded Human-Tonsil tissue. 1, Rock-1 Polyclonal Antibody was diluted at 1:200 (4°C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98°C, 20min). 3, Secondary antibody was diluted at 1:200 (room temperature, 30min). Negative control was used by secondary antibody only.