Best Tools for immunology Research

Rock-1 Polyclonal Antibody

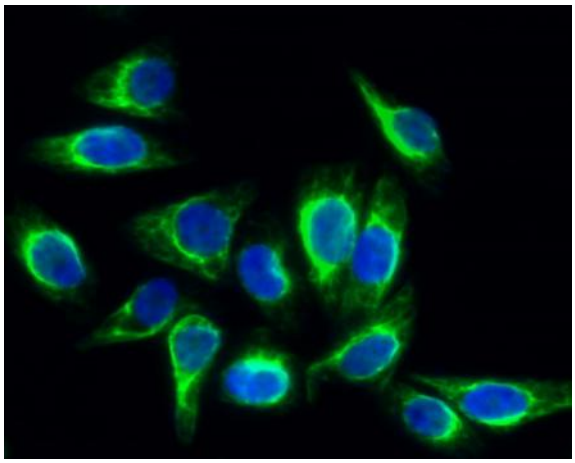
Catalog No :	YT4162
Reactivity :	Human;Mouse;Rat;Monkey
Applications :	IF;WB;IHC;ELISA
Target :	Rock-1
Fields :	>>cGMP-PKG signaling pathway;>>cAMP signaling pathway;>>Chemokine signaling pathway;>>Sphingolipid signaling pathway;>>Vascular smooth muscle contraction;>>TGF-beta signaling pathway;>>Axon guidance;>>Focal adhesion;>>Tight junction;>>Platelet activation;>>Leukocyte transendothelial migration;>>Regulation of actin cytoskeleton;>>Oxytocin signaling pathway;>>Pathogenic Escherichia coli infection;>>Shigellosis;>>Yersinia infection;>>Human cytomegalovirus infection;>>Pathways in cancer;>>Proteoglycans in cancer;>>MicroRNAs in cancer
Gene Name :	ROCK1
Protein Name :	Rho-associated protein kinase 1
Human Gene Id :	6093
Human Swiss Prot No :	Q13464
Mouse Gene Id :	19877
Mouse Swiss Prot No :	P70335
Rat Gene Id :	81762
Rat Swiss Prot No :	Q63644
Immunogen :	The antiserum was produced against synthesized peptide derived from human Rock-1. AA range:262-311
Specificity :	Rock-1 Polyclonal Antibody detects endogenous levels of Rock-1 protein.
	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Source/Isotype :	Polyclonal, Rabbit,IgG
Dilution :	IF 1:50-200 WB 1:500 - 1:2000. IHC 1:100 - 1:300. Immunocytochemistry: 1:200 - 1:1000. ELISA: 1:20000. Not yet tested in other applications.
Purification :	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Concentration :	1 mg/ml
Storage Stability :	-15°C to -25°C/1 year(Do not lower than -25°C)
Observed Band :	158kD
Cell Pathway :	Chemokine;Vascular smooth muscle contraction;WNT;WNT-T CELLTGF-beta;Axon guidance;Focal adhesion;Leukocyte transendothelial migration;Regulates Actin and Cytoskeleton;Pathogenic Escherichia coli infec
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 :	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 ap
Subcellular Location :	Cytoplasm . Cytoplasm, cytoskeleton, microtubule organizing center, centrosome, centriole . Golgi apparatus membrane ; Peripheral membrane protein . Cell projection, bleb . Cytoplasm, cytoskeleton . Cell membrane . Cell projection, lamellipodium . Cell projection, ruffle . A small proportion is associated with Golgi

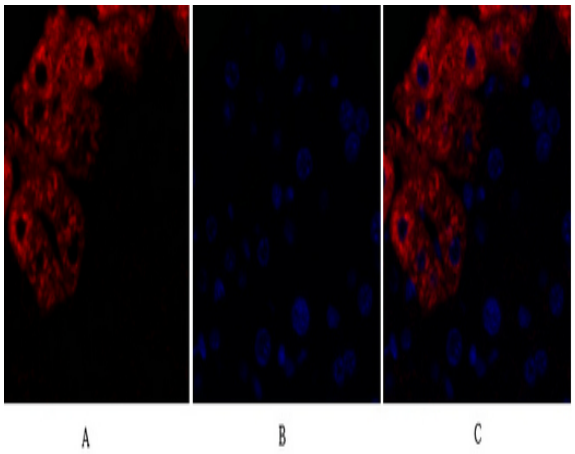
membranes (PubMed:12773565). Associated with the mother centriole and an intercentriolar linker (By similarity). Colocalizes with ITGB1BP1 and ITGB1 at the cell membrane predominantly in lamellipodia and membrane ruffles, but also in retraction fibers (By similarity). Localizes at the cell membrane in an ITGB1BP1-dependent manner (By similarity). .

Expression : Detected in blood platelets.

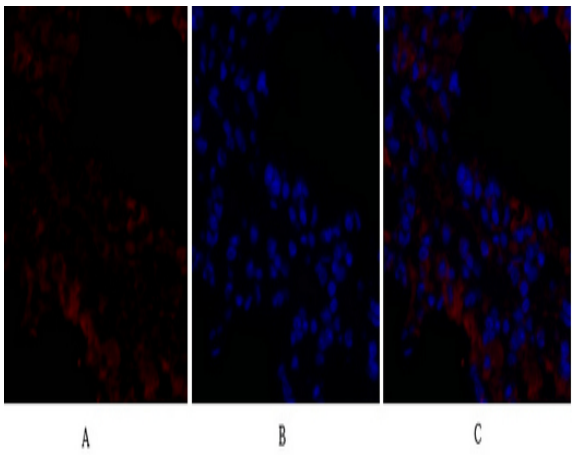
Products Images



Immunofluorescence analysis of Hela cell. 1,Rock-1 Polyclonal Antibody(green) was diluted at 1:200(4° overnight). 2, Goat Anti Rabbit Alexa Fluor 488 Catalog:RS3211 was diluted at 1:1000(room temperature, 50min). 3 DAPI(blue) 10min.



Immunofluorescence analysis of mouse-liver tissue. 1,Rock-1 Polyclonal Antibody(red) was diluted at 1:200(4°C,overnight). 2, Cy3 labled 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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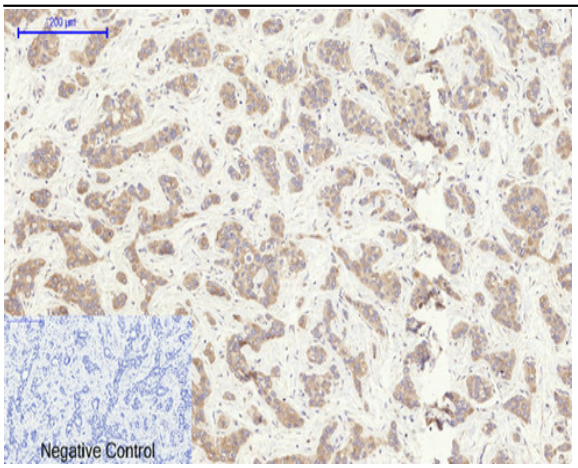
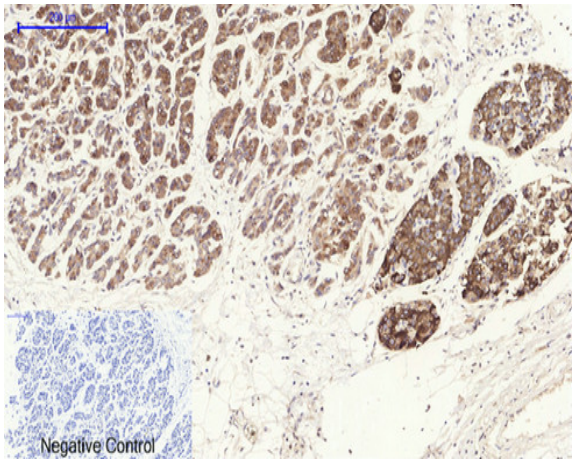
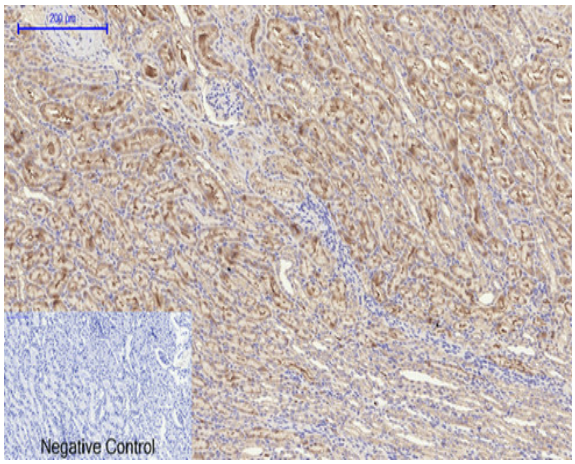


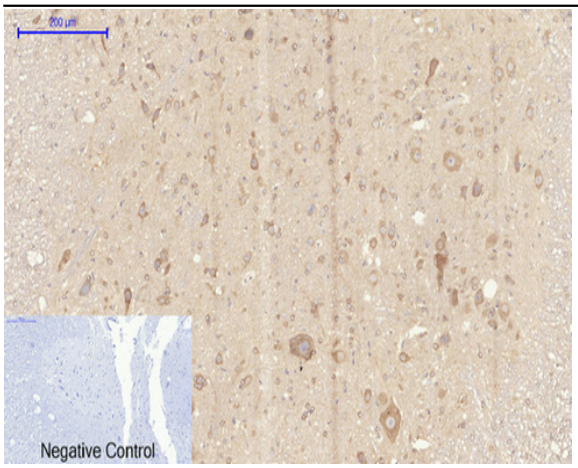
Immunohistochemical analysis of paraffin-embedded Human-liver-cancer tissue. 1,Rock-1 Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was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



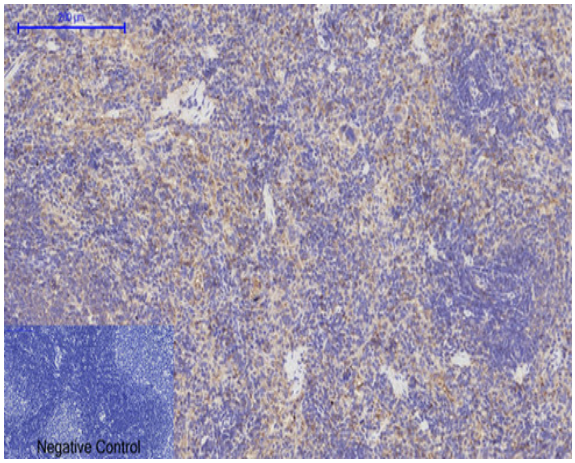
Immunohistochemical analysis of paraffin-embedded Human-stomach-cancer tissue. 1,Rock-1 Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control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



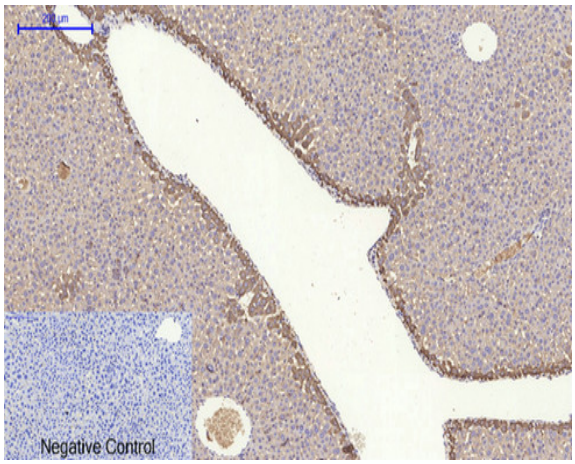
Immunohistochemical analysis of paraffin-embedded Rat-kidney tissue. 1,Rock-1 Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was used by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



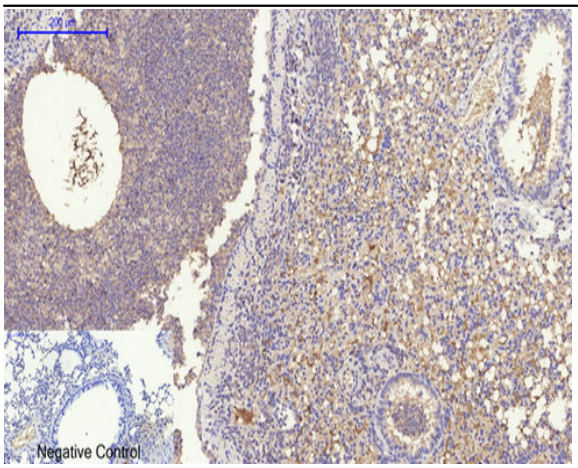
Immunohistochemical analysis of paraffin-embedded Rat-spinal-cord tissue. 1,Rock-1 Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was used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



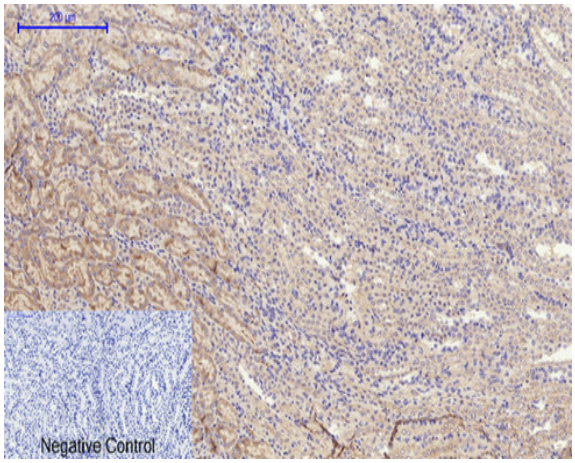
Immunohistochemical analysis of paraffin-embedded Rat-spleen tissue. 1,Rock-1 Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was used by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



Immunohistochemical analysis of paraffin-embedded Mouse-liver 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.



Immunohistochemical analysis of paraffin-embedded Mouse-lung 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.



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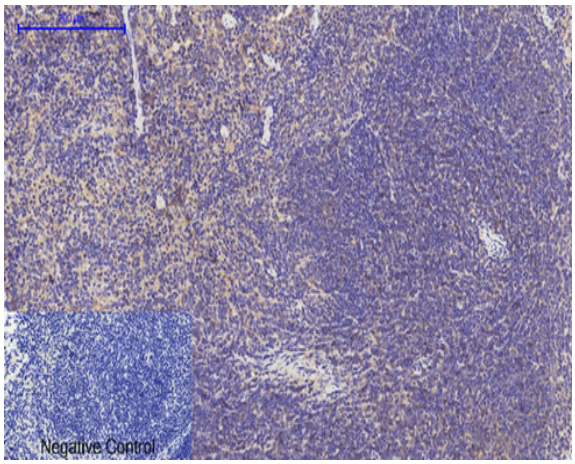

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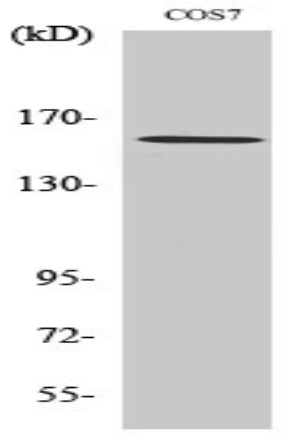
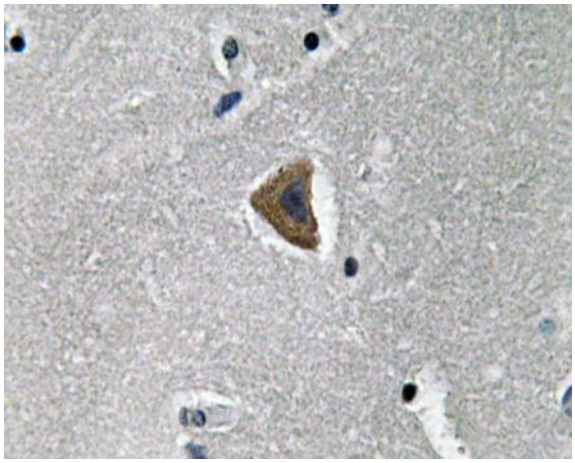
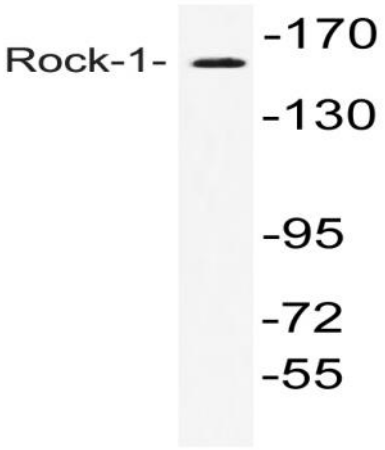


Western Blot analysis of various cells using Rock-1 Polyclonal Antibody diluted at 1:2000



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



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