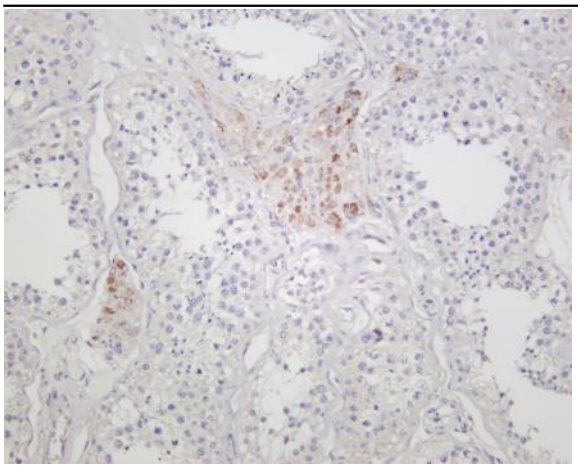
Best Tools for immunology Research

ROCK1 (PT0305R) PT® Rabbit mAb

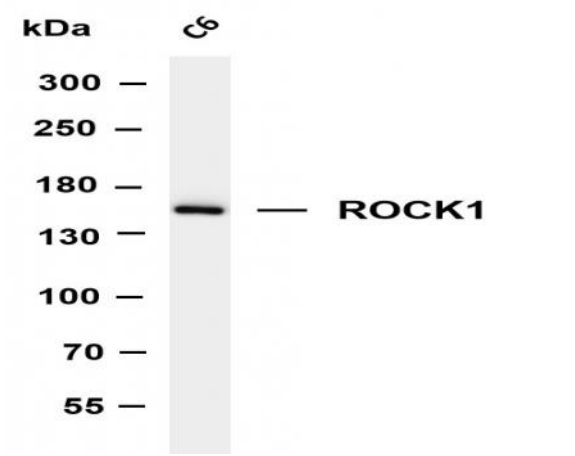
Catalog No :	YM8179
Reactivity :	Human; Mouse; Rat;
Applications :	WB;IHC;IF;IP;ELISA
Gene Name :	>>cGMP-PKG signaling pathway;>>cAMP signaling pathway;>>Chemokine signaling pathway;>>Sphingolipid signaling pathway;>>Vascular smooth muscle contraction;>>TGF-beta signaling pathway;>>Axon guidance;>>Focal 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
Protein Name :	ROCK1
Sequence :	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
Specificity :	endogenous
Formulation :	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
Source :	Monoclonal, rabbit, IgG, Kappa
Dilution :	IHC 1:200-1:1000,WB 1:1000-1:5000,IF 1:200-1:1000,ELISA 1:5000-1:20000,IP 1:50-1:200,

Purification :	Protein A
Storage Stability :	-15°C to -25°C/1 year(Do not lower than -25°C)
Molecularweight :	158kD
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, Membrane
Expression :	Detected in blood platelets.

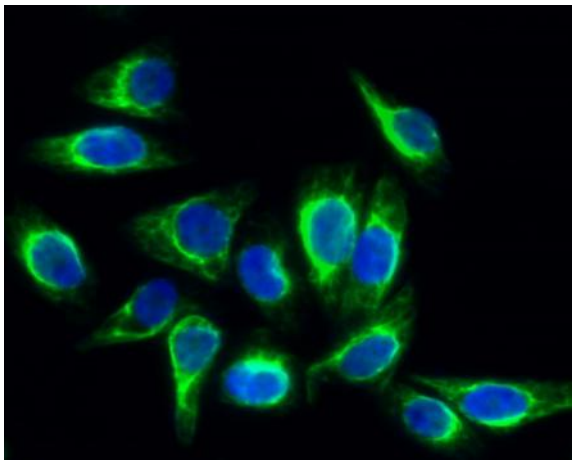
Products Images



Human testis was stained with anti-ROCK1 (PT0305R) rabbit antibody



Various whole cell lysates were separated by 4-8% SDS-PAGE, and the membrane was blotted with anti-ROCK1 (PT0305R) antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: C6 Predicted band size: 158kDa Observed band size: 158kDa



Immunofluorescence analysis of Hela cell. 1,Rock-1 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.