

# ROCK1 (PT0305R) PT™ Rabbit mAb

CatalogNo: YM8179 **Recombinant** 

## Key Features

### Host Species

- Rabbit

### Reactivity

- Human, Mouse, Rat

### Applications

- WB, IHC, IF, IP, ELISA

### MW

- 158kD (Calculated)  
158kD (Observed)

### Isotype

- IgG, Kappa

## Storage

**Storage\*** -15°C to -25°C/1 year (Do not lower than -25°C)**Formulation** PBS, 50% glycerol, 0.05% Proclin 300, 0.05% BSA

## Recommended Dilution Ratios

**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,**

## Basic Information

**Clonality** Monoclonal**Clone Number** PT0305R

## Immunogen Information

**Specificity** Endogenous

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## | Target Information

**Gene name** ROCK1

**Protein Name** Rho-associated protein kinase 1

Organism	Gene ID	UniProt ID
Human	<a href="#">6093</a> ;	<a href="#">Q13464</a> ;
Mouse	<a href="#">19877</a> ;	<a href="#">P70335</a> ;
Rat	<a href="#">81762</a> ;	<a href="#">Q63644</a> ;

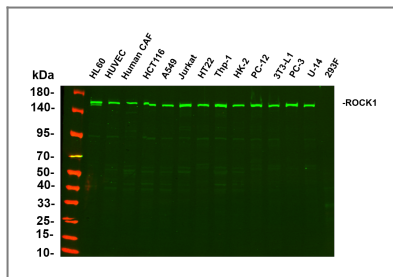
**Cellular Localization** Cytoplasm, Membrane

**Tissue specificity** Detected in blood platelets.

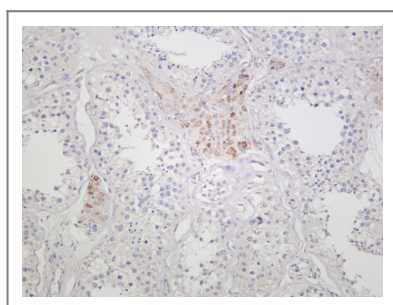
**Function** Catalytic activity:ATP + a protein = ADP + a phosphoprotein.,Domain:The C-terminal auto-inhibitory domain interferes with kinase activity. RHOA binding leads to a conformation change and activation of the kinase. Truncated ROCK1 is constitutively activated.,enzyme regulation:Activated by 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 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.,

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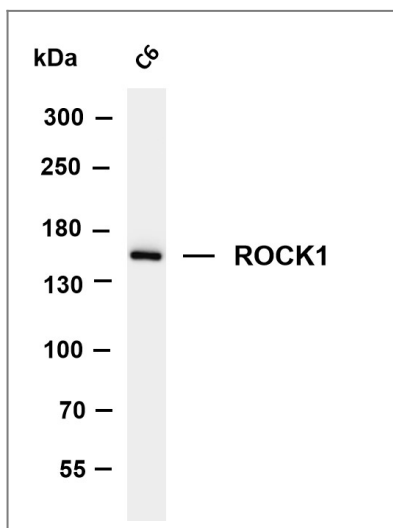
## | Validation Data



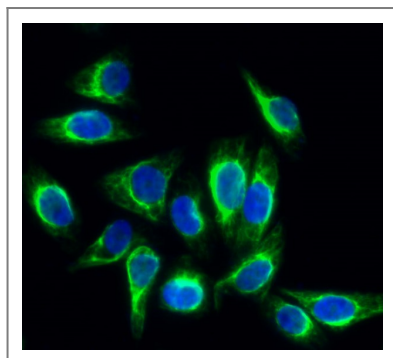
Various whole cell lysates were separated by 4-20% SDS-PAGE, and the primary antibody was used at 4°C, over night with a 1:2500 dilution . The Dylight 800-conjugated Goat anti-Rabbit antibody(Cat:RS23920) was used to detect the antibody. Lane1: HL60 - Human promyelocytic leukemia cell Lane2: HUVEC - Human umbilical vein endothelial cell Lane3: Human CAF - Human cancer-associated fibroblast Lane4: HCT116 - Human colorectal carcinoma Lane5: A549 - Human lung carcinoma Lane6: Jurkat - Human T lymphocyte leukemia Lane7: HT22 - Mouse hippocampal neuronal Lane8: Thp-1 - Human monocytic leukemia Lane9: HK-2 - Human proximal tubular epithelial Lane10: PC-12 - Rat adrenal pheochromocytoma Lane11: 3T3-L1 - Mouse embryonic fibroblast Lane12: PC-3 - Human prostate adenocarcinoma Lane13: U-14 - Mouse cervical carcinoma Lane14: 293F - HEK293 derivative, adapted for suspension culture Predicted band size: 158kDa Observed band size: 158kDa



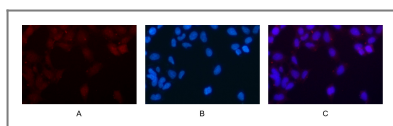
Human testis was stained with anti-ROCK1 rabbit antibody



Various whole cell lysates were separated by 4-8% SDS-PAGE, and the membrane was blotted with anti-ROCK1 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.



Immunofluorescence analysis of HEK293. Picture A: ROCK1 antibody (red). Picture B: DAPI (blue). Picture C: Merge of A+B

## | Contact information

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Please scan the QR code  
to access additional  
product information:  
**ROCK1 (PT0305R)**  
**PT™ Rabbit mAb**

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