

ROCK1 Rabbit pAb

CatalogNo: YT4162

| Key Features

Host Species

- Rabbit

Reactivity

- Human, Mouse, Rat, Monkey

Applications

- IF, WB, IHC, ELISA

MW

- 158kD (Observed)

Isotype

- IgG

| Recommended Dilution Ratios

IF 1:50-200

WB 1:500-1:2000

IHC 1:100-1:300

ICC 1:200-1:1000

ELISA 1:20000

Not yet tested in other applications

| Storage

Storage* -15°C to -25°C/1 year(Do not lower than -25°C)

Formulation Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

| Basic Information

Clonality Polyclonal

| Immunogen Information

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.

| Target Information

Gene name ROCK1

Protein Name Rho-associated protein kinase 1

Organism	Gene ID	UniProt ID
Human	6093 ;	Q13464 ;
Mouse	19877 ;	P70335 ;
Rat	81762 ;	Q63644 ;

Cellular Localization 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). .

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.,

| Validation Data

| Contact information

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Please scan the QR code
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ROCK1 Rabbit pAb

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