



# Rock-1 Polyclonal Antibody

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| <b>Catalog No</b>         | YP-Ab-14979                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Isotype</b>            | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Reactivity</b>         | Human;Mouse;Rat;Monkey                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Applications</b>       | IF;WB;IHC;ELISA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Gene Name</b>          | ROCK1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Protein Name</b>       | Rho-associated protein kinase 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Immunogen</b>          | The antiserum was produced against synthesized peptide derived from human Rock-1. AA range:262-311                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Specificity</b>        | Rock-1 Polyclonal Antibody detects endogenous levels of Rock-1 protein.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Formulation</b>        | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Source</b>             | Polyclonal, Rabbit,IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Purification</b>       | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Dilution</b>           | IF: 1:50-200 Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunocytochemistry: 1/200 - 1/1000. ELISA: 1/20000. Not yet tested in other applications.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Concentration</b>      | 1 mg/ml                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Purity</b>             | ≥90%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Storage Stability</b>  | -20°C/1 year                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Synonyms</b>           | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Observed Band</b>      | 158kD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Cell Pathway</b>       | 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). . |
| <b>Tissue Specificity</b> | Detected in blood platelets.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Function</b>           | 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

**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],

**matters needing attention**

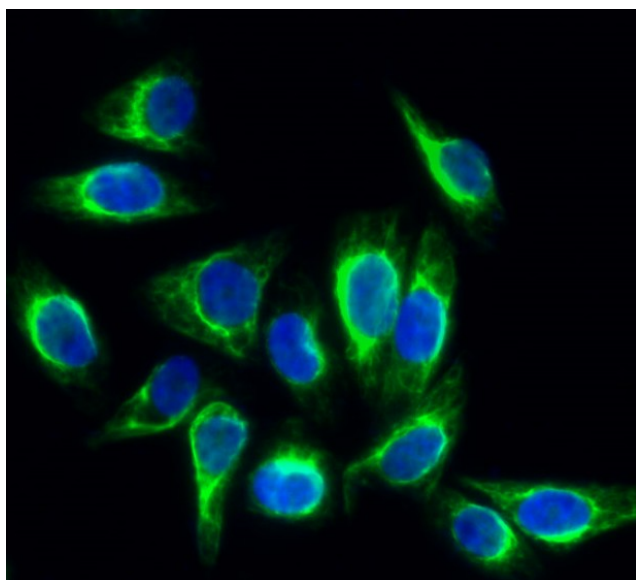
Avoid repeated freezing and thawing!

**Usage suggestions**

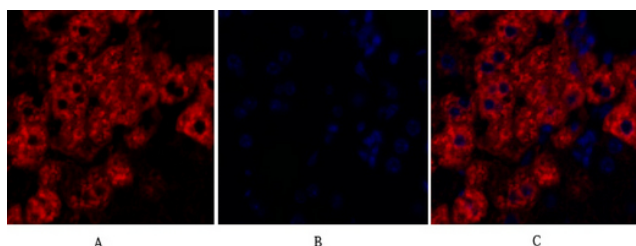
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



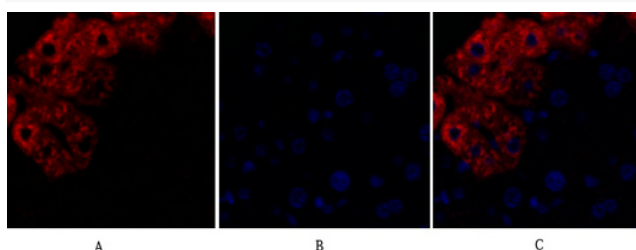
## Products Images



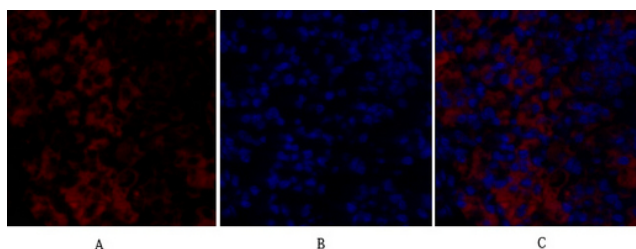
Immunofluorescence analysis of Hela cell. 1, Rock-1 Polyclonal Antibody (green) was diluted at 1:200 (4°C overnight). 2, Goat Anti Rabbit Alexa Fluor 488 Catalog: RS3211 was diluted at 1:1000 (room temperature, 50min). 3 DAPI (blue) 10min.



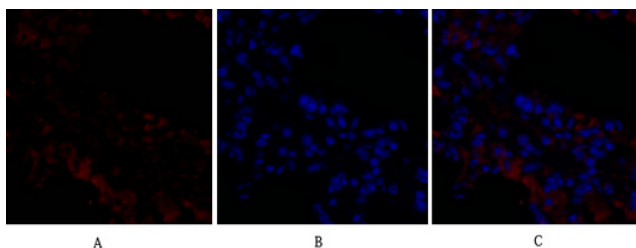
Immunofluorescence analysis of mouse-liver tissue. 1, Rock-1 Polyclonal Antibody (red) was diluted at 1:200 (4°C overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min). 3, Picture B: DAPI (blue) 10min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B



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



Immunofluorescence analysis of mouse-lung 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



Immunofluorescence analysis of mouse-lung 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