10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Rho Kinase Alpha Antibody
Rabbit Polyclonal Antibody
Catalog # ABV10608

Specification

Rho Kinase Alpha Antibody - Product Information

Application	**WB, IP**
Primary Accession	O75116
Other Accession	NP_004841.1
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**160900**

Rho Kinase Alpha Antibody - Additional Information

Gene ID 9475

Application & Usage	**Western blotting (1:1000 – 1:2500) and Immunoprecipitation. However, the optimal concentrations should be determined individually. The antibody recognizes the Rho Kinase Alpha of human and mouse origins. Reactivity to other species has not been tested.**

Other Names
Rho Kinase, ROCK2, ROCK-2, ROCKII, ROCK-II, Rho-associated, Coiled-coil containing protein Kinase 2, ROK-alpha, Rho Kinase Alpha, KIAA0619

Target/Specificity
Rho Kinase Alpha

Antibody Form
Liquid

Appearance
Colorless liquid

Formulation
100 µl affinity purified rabbit polyclonal antibody in phosphate-buffered saline (PBS) containing 30% glycerol, 1% BSA and 0.02% thimerosal.

Handling
The antibody solution should be gently mixed before use.

Reconstitution & Storage
-20 °C

Background Descriptions

Precautions
Rho Kinase Alpha Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Rho Kinase Alpha Antibody - Protein Information

Name ROCK2

Synonyms KIAA0619

Function
Protein kinase which is a key regulator of actin cytoskeleton and cell polarity. Involved in regulation of smooth muscle contraction, actin cytoskeleton organization, stress fiber and focal adhesion formation, neurite retraction, cell adhesion and motility via phosphorylation of ADD1, BRCA2, CNN1, EZR, DPYSL2, EP300, MSN, MYL9/MLC2, NPM1, RDX, PPP1R12A and VIM. Phosphorylates SORL1 and IRF4. Acts as a negative regulator of VEGF-induced angiogenic endothelial cell activation. Positively regulates the activation of p42/MAPK1- p44/MAPK3 and of p90RSK/RPS6KA1 during myogenic differentiation. Plays an important role in the timely initiation of centrosome duplication. Inhibits keratinocyte terminal differentiation. May regulate closure of the eyelids and ventral body wall through organization of actomyosin bundles. Plays a critical role in the regulation of spine and synaptic properties in the hippocampus. Plays an important role in generating the circadian rhythm of the aortic myofilament Ca(2+) sensitivity and vascular contractility by modulating the myosin light chain phosphorylation.

Cellular Location
Cytoplasm. Cell membrane; Peripheral membrane protein. Nucleus. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome Note=Cytoplasmic, and associated with actin microfilaments and the plasma membrane.

Tissue Location
Expressed in the brain (at protein level).

Rho Kinase Alpha Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Rho Kinase Alpha Antibody - Images

Rho Kinase Alpha Antibody - Background

Rho-associated protein kinase 2 (ROCK2), or Rho kinase alpha, is a serine-threonine protein kinase that plays an important role in cellular apoptosis, growth, cell motility and cell contraction. ROCK2 shares an overall 65% homology in amino acid sequence with ROCK1. The ROCK1 and ROCK2

isoforms are products of two separate genes. Both ROCK1 and ROCK2 are downstream targets of the Rho A small GTP-binding protein. As downstream effectors of RhoA, ROCK1 and ROCK2 mediate changes in the actin cytoskeleton via phosphorylation of target proteins such as the MBS subunit of MLCP, MLC, ERM proteins, protein LIM kinase and adducin.