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

KD-Validated Anti-ROCK2 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1029

Specification

KD-Validated Anti-ROCK2 Rabbit Monoclonal Antibody - Product Information

Application	**WB, FC, ICC**
Primary Accession	O75116
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 161 kDa , observed, 161 kDa KDa**
Gene Name	**ROCK2**
Aliases	**ROCK2; Rho Associated Coiled-Coil Containing Protein Kinase 2; Rho-Associated, Coiled-Coil-Containing Protein Kinase II; Rho-Associated Protein Kinase 2; P164 ROCK-2; EC 2.7.11.1; ROCK-II; Rho-Associated, Coiled-Coil-Containing Protein Kinase 2; Rho Kinase 2; EC 2.7.11; KIAA0619**
Immunogen	**A synthesized peptide derived from human ROCK2**

KD-Validated Anti-ROCK2 Rabbit Monoclonal Antibody - Additional Information

Gene ID	**9475**

Other Names
Rho-associated protein kinase 2, 2.7.11.1, Rho kinase 2, Rho-associated, coiled-coil-containing protein kinase 2, Rho-associated, coiled-coil-containing protein kinase II, ROCK-II, p164 ROCK-2, ROCK2, KIAA0619

KD-Validated Anti-ROCK2 Rabbit Monoclonal 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.

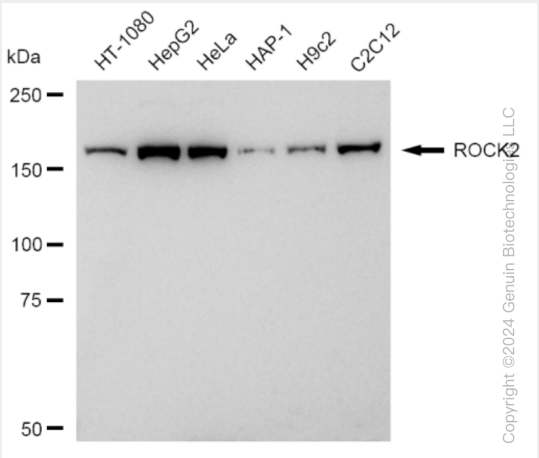
Tissue Location
Expressed in the brain (at protein level).

KD-Validated Anti-ROCK2 Rabbit Monoclonal Antibody - Protocols

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

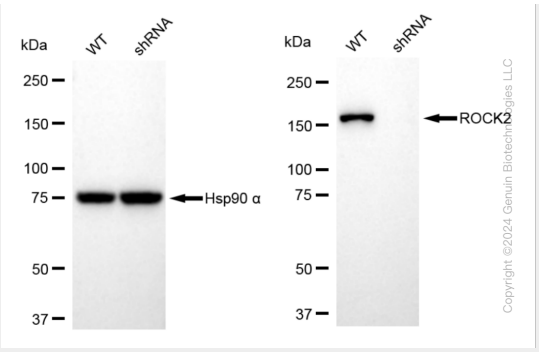
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

KD-Validated Anti-ROCK2 Rabbit Monoclonal Antibody - Images

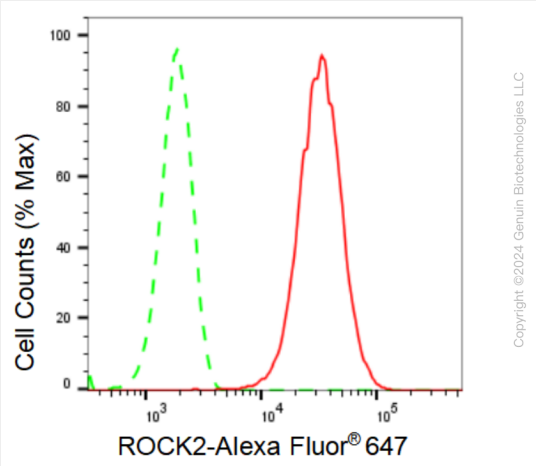


Western blotting analysis using anti-ROCK2 antibody (Cat#AGI1029). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-ROCK2 antibody (Cat#AGI1029, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.

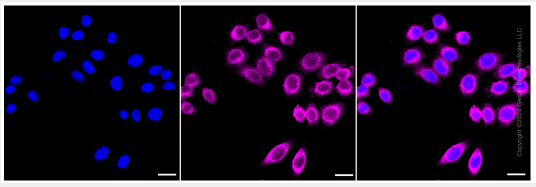
10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999



Western blotting analysis using anti-ROCK2 antibody (Cat#AGI1029). ROCK2 expression in wild type (WT) and ROCK2 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-ROCK2 antibody (Cat#AGI1029, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of ROCK2 expression in HepG2 cells using ROCK2 antibody (Cat#AGI1029, 1:2,000). Green, isotype control; red, ROCK2.



Immunocytochemical staining of HepG2 cells with ROCK2 antibody (Cat#AGI1029, 1:1,000). Nuclei were stained blue with DAPI; ROCK2 cochaperone 3 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.