

ROCK2 Antibody (clone 1E12)

Mouse Monoclonal Antibody Catalog # ALS13454

Specification

ROCK2 Antibody (clone 1E12) - Product Information

Application WB, IF
Primary Accession O75116
Reactivity Human
Host Mouse
Clonality Monoclonal
Calculated MW 161kDa KDa

ROCK2 Antibody (clone 1E12) - 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

Reconstitution & Storage

Store at -20°C. Aliquot to avoid freeze/thaw cycles.

Precautions

ROCK2 Antibody (clone 1E12) is for research use only and not for use in diagnostic or therapeutic procedures.

ROCK2 Antibody (clone 1E12) - 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).

ROCK2 Antibody (clone 1E12) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- <u>Immunofluorescence</u>
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

ROCK2 Antibody (clone 1E12) - Images



ROCK2 monoclonal antibody, clone 1E12 Western blot of ROCK2 expression in HeLa NE.



Immunofluorescence of monoclonal antibody to ROCK2 on HeLa cell (antibody concentration 30 ug/ml).



ROCK2 Antibody (clone 1E12) - Background

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.

ROCK2 Antibody (clone 1E12) - References

Takahashi N.,et al.Genomics 55:235-237(1999). Ishikawa K.,et al.DNA Res. 5:169-176(1998). Hillier L.W.,et al.Nature 434:724-731(2005). Kawano Y.,et al.J. Cell Biol. 147:1023-1038(1999). Sebbagh M.,et al.J. Exp. Med. 201:465-471(2005).