

ROCK2 Antibody (Internal)
Rabbit Polyclonal Antibody
Catalog # ALS14821**Specification**

ROCK2 Antibody (Internal) - Product Information

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

ROCK2 Antibody (Internal) - 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

Target/Specificity

Human ROCK2. Three isoforms of ROCK2 are known to exist; this antibody recognizes all three isoforms. ROCK2 antibody is predicted to not cross-react with other ROCK protein family members.

Reconstitution & Storage

Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles. Store undiluted.

Precautions

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

ROCK2 Antibody (Internal) - 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.

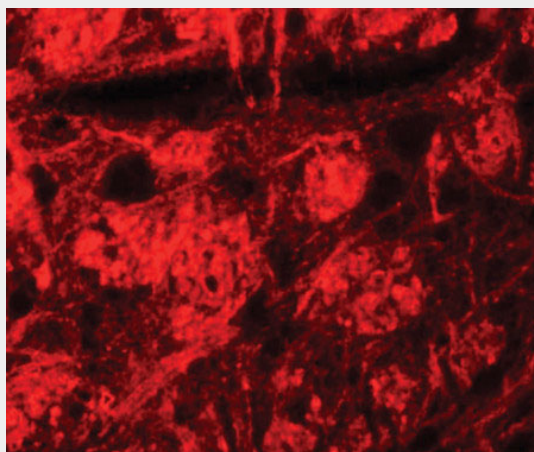
Tissue Location

Expressed in the brain (at protein level).

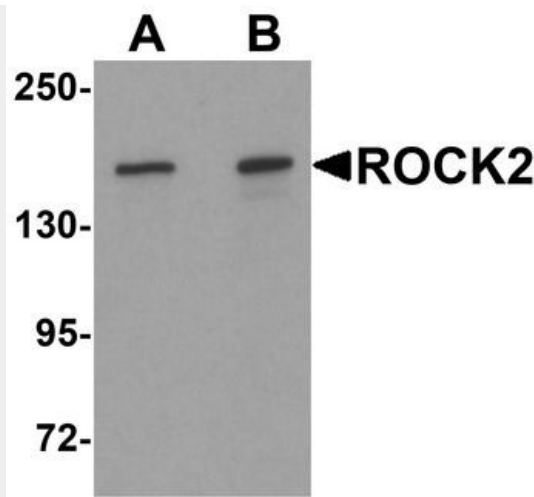
ROCK2 Antibody (Internal) - Protocols

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

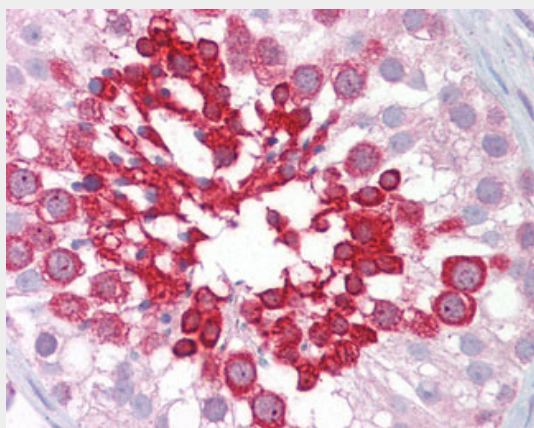
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

ROCK2 Antibody (Internal) - Images

Immunofluorescence of ROCK2 in mouse brain tissue with ROCK2 antibody at 20 ug/ml.



Western blot analysis of ROCK2 in mouse brain tissue lysate with ROCK2 antibody at (A) 1 and (B)...



Anti-ROCK2 antibody IHC of human testis.

ROCK2 Antibody (Internal) - 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 (Internal) - 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).

