

Rabbit Anti-ROCK2 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP52048

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	O75116
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	160900

Additional Information

Gene ID	9475
Other Names	ROCK-II; Rho-associated protein kinase 2; Rho kinase 2; Rho-associated, coiled-coil-containing protein kinase 2; Rho-associated, coiled-coil-containing protein kinase II; p164 ROCK-2; ROCK2; KIAA619
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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).

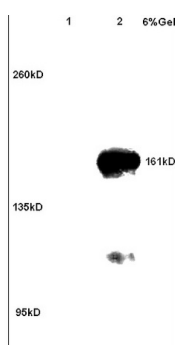
Background

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.

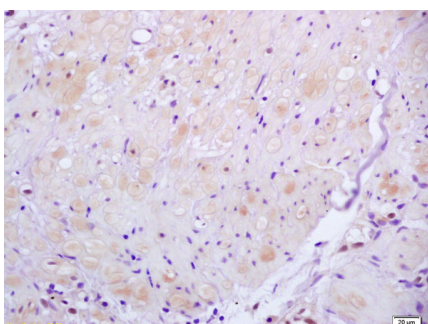
References

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).

Images



Lane 1: rat brain lysates Lane 2: human colon carcinoma lysates probed with Anti ROCK2 Polyclonal Antibody, Unconjugated (AP52048) at 1:200 in 4C. Followed by conjugation to secondary antibody at 1:3000 90min in 37C. Predicted band 161kD. Observed band size: 161kD



Formalin-fixed and paraffin embedded human gastric carcinoma labeled with Anti ROCK2 Polyclonal Antibody, Unconjugated (AP52048) at 1:200 followed by conjugation to the secondary antibody and DAB staining

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.