

Rabbit ROCK2 Polyclonal Antibody | anti-ROCK2 antibody

Phospho-ROCK2 (Tyr722) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329890	Rabbit	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (100%), Xenopus (86%)	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

ROCK2; Polyclonal Antibody; Phospho-ROCK2 (Tyr722) Antibody; coiled-coil-containing protein kinase 2; KIAA0619; p164 ROCK 2; p164 ROCK-2; Rho associated coiled coil containing protein kinase 2; Rho associated protein kinase 2; Rho associated; coiled coil containing protein kinase II; Rho kinase 2; Rho-associated; Rho-associated protein kinase 2; ROCK 2; Rock II; Rock2; ROCK2_HUMAN; Rock2m; ROK alpha; ROKalpha; anti-ROCK2 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (100%), Xenopus (86%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-ROCK2 (Tyr722) Antibody detects endogenous levels of ROCK2 only when phosphorylated at Tyr722. Tissue Specificity: Expressed in the brain (at protein level).
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-ROCK2 antibody	ELISA (Peptide ELISA), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human ROCK2 around the phosphorylation site of Tyr722.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Phosphorylation at Tyr-722 reduces its binding to RHOA and is crucial for focal adhesion dynamics. Dephosphorylation by PTPN11 stimulates its RHOA binding activity. Cleaved by granzyme B during apoptosis. This leads to constitutive activation of the kinase and membrane blebbing.
Subunit Structure	Homodimer (By similarity). Interacts with IRS1 (By similarity). Interacts with RAF1 (By similarity). Interacts with RHOA (activated by GTP), RHOB and RHOC (By similarity). Interacts with PPP1R12A. Interacts with EP300. Interacts with CHORDC1. Interacts with BRCA2. Interacts with NPM1; this interaction enhances ROCK2 activity. Interacts with SORL1.
Similarity	An interaction between Thr-414 and Asp-48 is essential for kinase activity and dimerization. Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family.
Subcellular 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.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IHC (Immunohistochemistry)
At 1/100 staining Mouse brain tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemisry)
At 1/100 staining Mouse colorectal tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohiostchemistry)
Staining Rat brain tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



WB (Western Blot)
Western blot analysis of ROCK2 (Phospho-Tyr722) using Paclitaxel treated Jurkat whole cell lysates. -/+ means absence or presence of N peptide(1/4 non-phospho peptide) and P peptide(phospho peptide).

ADDITIONAL INFORMATION

Related Product Information for anti-ROCK2 antibody	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.
---	--

NCBI AND UNIPROT INFORMATION

NCBI GI #	41872583
NCBI GeneID	9475
NCBI Accession #	NP_004841.2
NCBI GenBank Nucleotide #	NM_004850.3
UniProt Accession #	O75116; Q53QZ0; Q53SJ7; Q9UQN5
Molecular Weight	160,900 Da
NCBI Official Full Name	rho-associated protein kinase 2
NCBI Official Synonym Full Names	Rho-associated, coiled-coil containing protein kinase 2
NCBI Official Symbol	ROCK2
NCBI Official Synonym Symbols	ROCK-II
NCBI Protein Information	rho-associated protein kinase 2; p164 ROCK-2; rho-associated, coiled-coil-containing protein kinase II
UniProt Protein Name	Rho-associated protein kinase 2
UniProt Gene Name	ROCK2
UniProt Synonym Gene Names	KIAA0619; ROCK-II
UniProt Entry Name	ROCK2_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com

Online datasheet: <https://stage.aaabiotech.com/polyclonal/rock2-antibody-peptide-elisa-immunohistochemistry-western-blot-elisa/329890>