# Rabbit ROCK2 Polyclonal Antibody | anti-ROCK2 antibody

Phospho-ROCK2 (Ser1366) Antibody

| CATALOG # | HOST | REACTIVITY | APPLICATIONS |
|---|---|---|---|
| **AAA328318** | **Rabbit** | **Human, Mouse, RatPredicted: Pig, Bovine, Horse, Sheep, Rabbit, Dog** | **ELISA, Immunohistochemistry, Western Blot** |

## PRODUCT SYNONYMS

ROCK2; Polyclonal Antibody; Phospho-ROCK2 (Ser1366) 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

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| **Host** | Rabbit |
| **Reactivity** | Human, Mouse, Rat<br>Predicted: Pig, Bovine, Horse, Sheep, Rabbit, Dog |
| **Clonality** | Polyclonal |
| **Isotype** | IgG |
| **Specificity** | Phospho-ROCK2 (Ser1366) Antibody detects endogenous levels of ROCK2 only when phosphorylated at Ser1366. |
| **Purity/Purification** | Purified rabbit serum by affinity purification via sequential chromatography on phospho- and non-phospho-peptide affinity columns. |
| **Form/Format** | Liquid; Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. |
| **Concentration** | 1mg/ml (varies by lot) |
| **Sequence Length** | 1388 |
| **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 Ser1366. |
| **Subcellular Location** | Cytoskeleton; Plasma Membrane; Nucleus |
| **Preparation and Storage** | Store at -20 degree C. Stable for 12 months from date of receipt. |

## IMAGES

**WB (Western Blot)**
Western blot analysis of Phospho-ROCK2 (Ser1366) in lysates of HeLa?, using Phospho-ROCK2 (Ser1366) Antibody.

**IHC (Immunohistochemisry)**
At 1/100 staining mouse heart tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary

**IHC (Immunohiostchemistry)**
At 1/100 staining rat lung tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary

**IHC (Immunohistochemistry)**
At 1/100 staining human kidney tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary

## ADDITIONAL INFORMATION

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| **Related Product Information for anti-ROCK2 antibody** | Description: 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 Ca2+ sensitivity and vascular contractility by modulating the myosin light chain phosphorylation.<br><br>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.<br><br>Subunit Structure: Homodimer. Interacts with IRS1, RHOB and RHOC (By similarity). Interacts with RHOA (activated by GTP), PPP1R12A, CHORDC1, SORL1, EP300 and BRCA2. Interacts with NPM1 and this interaction enhances its activity. Interacts with RAF1 (By similarity).<br><br>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. |

## NCBI AND UNIPROT INFORMATION

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| **NCBI GI #** | 41872583 |
| **NCBI GeneID** | 9475 |
| **NCBI Accession #** | NP_004841.2 |
| **NCBI GenBank Nucleotide #** | NP_004841.2 |
| **UniProt Accession #** | O75116 |
| **Molecular Weight** | Observed: 165 kDa<br>Predicted: 161 kDa |
| **NCBI Official Full Name** | rho-associated protein kinase 2 isoform 1 |
| **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 |
| **UniProt Protein Name** | Rho-associated protein kinase 2 |
| **UniProt Gene Name** | **ROCK2** |
| **UniProt Synonym Gene Names** | KIAA0619; ROCK-II |

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| **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.

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Online datasheet: https://stage.aaabiotech.com/polyclonal/rock2-antibody-peptide-elisa-immunohistochemistry-western-blot-elisa/328318