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# ARG56310
# anti-ROCK2 antibody

Package: 100 µl, 50 µl
Store at: -20°C

## Summary

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|---|---|
| Product Description | Rabbit Polyclonal antibody recognizes ROCK2 |
| Tested Reactivity | Hu, Ms, Rat |
| Tested Application | ICC/IF, IHC-P, WB |
| Host | Rabbit |
| Clonality | Polyclonal |
| Isotype | IgG |
| Target Name | ROCK2 |
| Species | Human |
| Immunogen | Recombinant protein of Human ROCK2 |
| Conjugation | Un-conjugated |
| Alternate Names | Rho-associated, coiled-coil-containing protein kinase II; p164 ROCK-2; ROCK-II; EC 2.7.11.1; Rho-associated, coiled-coil-containing protein kinase 2; Rho-associated protein kinase 2; Rho kinase 2 |

## Application Instructions

Application table

| Application | Dilution |
|---|---|
| ICC/IF | 1:50 - 1:200 |
| IHC-P | 1:50 - 1:200 |
| WB | 1:500 - 1:2000 |

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| Application Note | * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist. |
| Positive Control | U87 |
| Observed Size | 180 kDa |

## Properties

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| Form | Liquid |
| Purification | Affinity purification with immunogen. |
| Buffer | PBS (pH 7.3), 0.02% Sodium azide and 50% Glycerol. |
| Preservative | 0.02% Sodium azide |
| Stabilizer | 50% Glycerol |
| Storage instruction | For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use. |

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|---|---|
| Note | For laboratory research only, not for drug, diagnostic or other use. |

## Bioinformation

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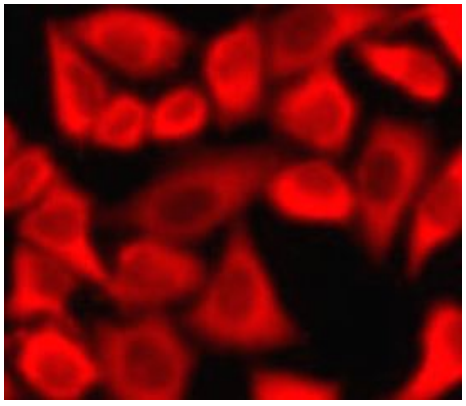
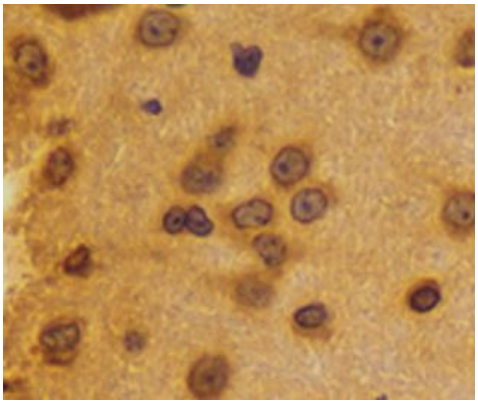
|---|---|
| Gene Symbol | ROCK2 |
| Gene Full Name | Rho-associated, coiled-coil containing protein kinase 2 |
| Background | The protein encoded by this gene is a serine/threonine kinase that regulates cytokinesis, smooth muscle contraction, the formation of actin stress fibers and focal adhesions, and the activation of the c-fos serum response element. This protein, which is an isozyme of ROCK1 is a target for the small GTPase Rho. [provided by RefSeq, Jul 2008] |
| 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. [UniProt] |
| Calculated Mw | 161 kDa |
| PTM | Phosphorylation at Tyr-722 reduces its binding to RHOA and is crucial for focal adhesion dynamics. Dephosphorylation by PTPN11 stimulates its RHOA binding activity.<br>Cleaved by granzyme B during apoptosis. This leads to constitutive activation of the kinase and membrane blebbing. |

## Images



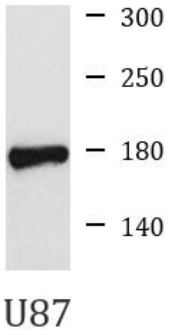
ARG56310 anti-ROCK2 antibody ICC/IF image

Immunofluorescence: U2OS cells stained with ARG56310 anti-ROCK2 antibody.



ARG56310 anti-ROCK2 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Rat brain stained with ARG56310 anti-ROCK2 antibody at 1:100 dilution.




ARG56310 anti-ROCK2 antibody WB image

Western blot: U87 cell lysate stained with ARG56310 anti-ROCK2 antibody.