# **Anti-ROCK2 Antibody [JE31-36]**

### **HA722176**



Product Type: Recombinant Rabbit monoclonal IgG, primary antibodies

Species reactivity: Human, Mouse, Rat
Applications: WB, IF-Cell, IHC-P

Molecular Wt: Predicted band size: 161 kDa

Clone number: JE31-36

**Description:** Rho associated coiled-coil containing protein kinase 2 is a protein that in humans is encoded

by the ROCK2 gene. Fasudil is an inhibitor of ROCK protein. 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.

Immunogen: Synthetic peptide within C terminal Human ROCK2.

Positive control: HepG2 cell lysate, MCF7 cell lysate, C2C12 cell lysate, C6 cell lysate, mouse brain tissue

lysate, rat brain tissue lysate, HeLa, mouse brain tissue, rat brain tissue.

Subcellular location: Cytoplasm, Cell membrane, Nucleus, cytoskeleton, microtubule organizing center,

centrosome.

Database links: SwissProt: O75116 Human | P70336 Mouse | Q62868 Rat

**Recommended Dilutions:** 

WB 1:1,000 IF-Cell 1:100 IHC-P 1:1,000

Storage Buffer: 1\*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Shipped at  $4^{\circ}$ C. Store at  $+4^{\circ}$ C short term (1-2 weeks). It is recommended to aliquot into

single-use upon delivery. Store at -20 °C long term.

**Purity:** Protein A affinity purified.

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#### **Images**

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Fig1: Western blot analysis of ROCK2 on different lysates with Rabbit anti-ROCK2 antibody (HA722176) at 1/1,000 dilution.

Lane 1: HepG2 cell lysate Lane 2: MCF7 cell lysate Lane 3: C2C12 cell lysate Lane 4: C6 cell lysate

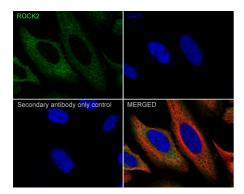
Lane 5: Mouse brain tissue lysate Lane 6: Rat brain tissue lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 161 kDa Observed band size: 150 kDa

Exposure time: 59 seconds; ECL: K1801;

4-20% SDS-PAGE gel.



**Fig2:** Immunocytochemistry analysis of HeLa cells labeling ROCK2 with Rabbit anti-ROCK2 antibody (HA722176) at 1/100 dilution.

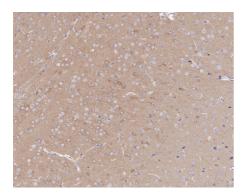
Cells were fixed in 4% paraformaldehyde for 20 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 5 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Rabbit anti-ROCK2 antibody (HA722176) at 1/100 dilution in 1% BSA in PBST overnight at 4  $^{\circ}$ C. Goat Anti-Rabbit IgG H&L (iFluor 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (M1305-2, red) was stained at 1/100 dilution overnight at +4°C. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

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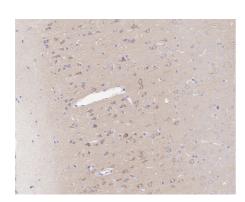
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**Fig3:** Immunohistochemical analysis of paraffin-embedded mouse brain tissue with Rabbit anti-ROCK2 antibody (HA722176) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (HA722176) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.



**Fig4:** Immunohistochemical analysis of paraffin-embedded rat brain tissue with Rabbit anti-ROCK2 antibody (HA722176) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (HA722176) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

#### **Background References**

- 1. Jagasia M et al. ROCK2 Inhibition With Belumosudil (KD025) for the Treatment of Chronic Graft-Versus-Host Disease. J Clin Oncol. 2021 Jun
- 2. Peng L et al. circCUL2 regulates gastric cancer malignant transformation and cisplatin resistance by modulating autophagy activation via miR-142-3p/ROCK2. Mol Cancer. 2020 Nov

