

Anti-ROCK2 Antibody Picoband®

Catalog Number: A01023-1

About ROCK2

Rho-associated kinase (ROCK), including the ROCK-I and ROCK-II isoforms, is a protein kinase involved in signaling from Rho to actin cytoskeleton. Serine/threonine kinase ROCK II/Rho kinase, which is an isozyme of ROCK I, is one of the targets for the small GTPase Rho. ROCK II regulates the formation of actin stress fibers and focal adhesions, cytokinesis, smooth muscle contraction, and the activation of c-fos serum response element. Sequencing analysis has shown that human ROCK II contains 1388 amino acid residues with a calculated molecular mass of approximately 161 kDa. Fluorescence in situ hybridization analysis showed that the human ROCK II gene is located on chromosome 2p24. Thumkeo et al. concluded that ROCK-II is essential in inhibiting blood coagulation and maintaining blood flow in the endothelium-free labyrinth layer and that loss of ROCK-II leads to thrombus formation, placental dysfunction, intrauterine growth retardation, and fetal death.

Overview

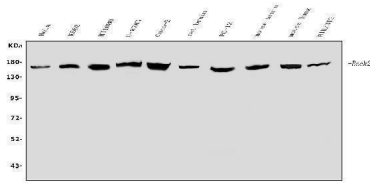
Product Name	Anti-ROCK2 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-ROCK2 Antibody Picoband® catalog # A01023-1. Tested in ELISA, Flow Cytometry, IF, ICC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	ELISA, Flow Cytometry, IF, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na ₂ HPO ₄ .
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	O75116

Technical Details

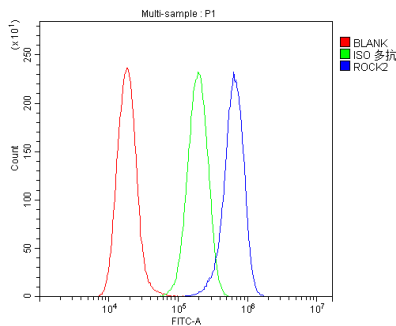
Immunogen	E.coli-derived human ROCK2 recombinant protein (Position: E652-D909).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG

Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.25ug/ml, Human, Mouse, Rat Immunocytochemistry/Immunofluorescence, 5ug/ml, Human, Flow Cytometry (Fixed), 1-3ug/1x10 ⁶ cells, Human ELISA, 0.1-0.5ug/ml, -

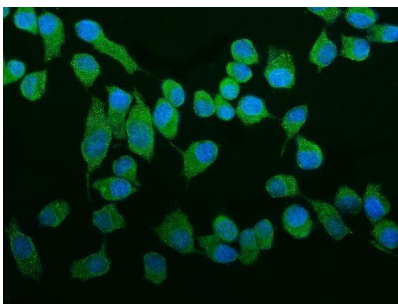
Anti-ROCK2 Antibody Picoband® (A01023-1) Images



Western blot analysis of ROCK2 using anti-ROCK2 antibody (A01023-1). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: human HELA whole cell lysates, Lane 2: human K562 whole cell lysates, Lane 3: human Jurkat whole cell lysates, Lane 4: human HT1080 whole cell lysates, Lane 5: human U-87MG whole cell lysates, Lane 6: human CACO-2 whole cell lysates, Lane 7 : rat brain tissue lysates, Lane 8 : rat PC-12 whole cell lysates, Lane 9 : mouse brain tissue lysates, Lane 10: mouse lung tissue lysates, Lane 11: mouse NIH/3T3 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-ROCK2 antigen affinity purified polyclonal antibody (Catalog # A01023-1) at 0.25 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for ROCK2 at approximately 161KD. The expected band size for ROCK2 is at 161KD.



Flow Cytometry analysis of A549 cells using anti-ROCK2 antibody (A01023-1). Overlay histogram showing A549 cells stained with A01023-1 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-ROCK2 Antibody (A01023-1, 1ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



IF analysis of ROCK2 using anti-ROCK2 antibody (A01023-1). ROCK2 was detected in immunocytochemical section of Hep cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5ug/mL rabbit anti-ROCK2 Antibody (A01023-1) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

3 Publications Citing This Product

1. PubMed ID: 10.4103/1673-5374.165512, The role of Rho/Rho-kinase pathway and the neuroprotective effects of fasudil in chronic cerebral ischemia
2. PubMed ID: 10.1002/jcp.21923, ROCK pathway participates in the processes that 15 ω -hydroxyeicosatetraenoic acid (15 ω -HETE) mediated the pulmonary vascular remodeling induced by hypoxia in rat
3. PubMed ID: 32990282, Han F,Xu H,Shen JX,Pan C,Yu ZH,Chen JJ,Zhu XL,Cai YF,Lu YP.RhoA/Rock2/Limk1/cofilin1 pathway is involved in attenuation of neuronal dendritic spine loss by paeonol in the frontal cortex of D-galactose and aluminum α -induced Alzheimer's disease α -like ra

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Anti-ROCK2 Antibody

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