

Anti-ROCK2 Antibody Picoband®

Catalog Number: A01023-2

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

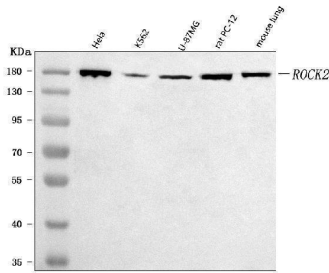
Product Name	Anti-ROCK2 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-ROCK2 Antibody Picoband® catalog # A01023-2. Tested in ELISA, Flow Cytometry, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody 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, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Storage Instructions	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 freezing and thawing.
Host	Rabbit
Uniprot ID	O75116

Technical Details

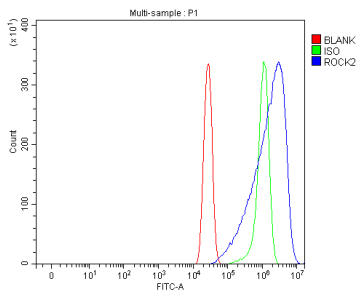
Immunogen	E.coli-derived human ROCK2 recombinant protein (Position: R908-K1386).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG

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

Anti-ROCK2 Antibody Picoband® (A01023-2) Images



Western blot analysis of ROCK2 using anti-ROCK2 antibody (A01023-2). 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 30 ug of sample under reducing conditions. Lane 1: human HeLa whole cell lysates, Lane 2: human K562 whole cell lysates, Lane 3: human U-87MG whole cell lysates, Lane 4: rat PC-12 whole cell lysates, Lane 5: mouse lung tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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 # A01023-2) at 0.5 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 180 kDa. The expected band size for ROCK2 is at 161 kDa.



Flow Cytometry analysis of A431 cells using anti-ROCK2 antibody (A01023-2). Overlay histogram showing A431 cells stained with A01023-2 (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 (A01023-2, 1 ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

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Anti-ROCK2 Antibody

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