

Anti-RIP2/RIPK2 Antibody Picoband®

Catalog Number: A00818-2

About RIPK2

RIPK2 (Receptor-interacting serine/threonine-protein kinase 2), also known as CARD3, CARDIAK, RICK, RIP2, is an enzyme that in humans is encoded by the RIPK2 gene. It has a 540-amino acid protein in length. Northern blot analysis revealed that RICK is expressed in various human tissues as 2.5- and 1.8-kb mRNAs that differ due to alternative polyadenylation. RICK is a novel kinase that may regulate apoptosis induced by the FAS receptor pathway. This gene encodes a member of the receptor-interacting protein (RIP) family of serine/threonine protein kinases. The encoded protein contains a C-terminal caspase recruitment domain (CARD), and is a component of signaling complexes in both the innate and adaptive immune pathways. It is a potent activator of NF-kappa B and inducer of apoptosis in response to various stimuli. CARDIAK (CARD-containing ICE-associated kinase) specifically interacted with the CARD of ICE/caspase-1, and this interaction correlated with the processing of pro-caspase-1 and the formation of the active caspase-1 p20 subunit.

Overview

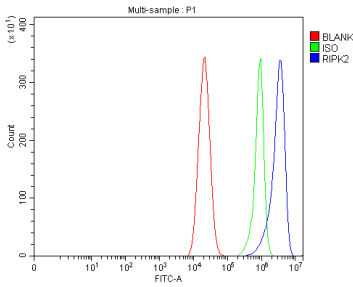
Product Name	Anti-RIP2/RIPK2 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-RIP2/RIPK2 Antibody Picoband® catalog # A00818-2. Tested in ELISA, Flow Cytometry, IHC, WB applications. This antibody reacts with human. The brand Picoband indicates this is a premium antibody that guarantees 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, IHC, 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	O43353

Technical Details

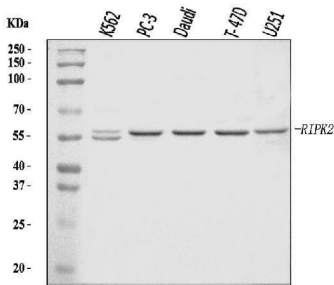
Immunogen	E.coli-derived human RIP2/RIPK2 recombinant protein (Position: Y15-M540).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG

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

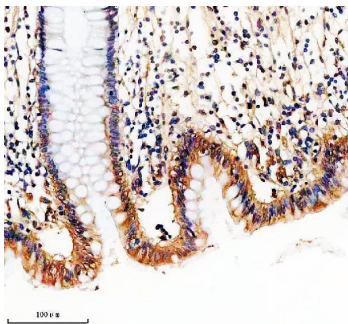
Anti-RIP2/RIPK2 Antibody Picoband® (A00818-2) Images



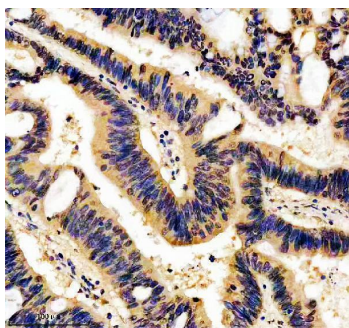
Flow Cytometry analysis of Caco-2 cells using anti-RIP2/RIPK2 antibody (A00818-2). Overlay histogram showing Caco-2 cells stained with A00818-2 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-RIP2/RIPK2 Antibody (A00818-2, 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.



Western blot analysis of RIP2/RIPK2 using anti-RIP2/RIPK2 antibody (A00818-2). 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 K562 whole cell lysates, Lane 2: human PC-3 whole cell lysates, Lane 3: human Daudi whole cell lysates, Lane 4: human T-47D whole cell lysates, Lane 5: human U251 whole cell 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-RIP2/RIPK2 antigen affinity purified polyclonal antibody (Catalog # A00818-2) 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 RIP2/RIPK2 at approximately 61 kDa. The expected band size for RIP2/RIPK2 is at 61 kDa.



IHC analysis of RIPK2 using anti-RIPK2 antibody (A00818-2). RIPK2 was detected in a paraffin-embedded section of human colon tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with rabbit anti-RIPK2 Antibody (A00818-2) at 5 ug/ml overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of RIPK2 using anti- RIPK2 antibody (A00818-2). RIPK2 was detected in a paraffin-embedded section of human colon cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with rabbit anti- RIPK2 Antibody (A00818-2) at 5 ug/ml overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

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Anti-RIP2/RIPK2 Antibody

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