

Anti-Raf1 Antibody Picoband®

Catalog Number: A00446-1

About RAF1

RAF proto-oncogene serine/threonine-protein kinase, also known as proto-oncogene c-RAF or simply c-Raf or even Raf-1, is an enzyme that in humans is encoded by the RAF1 gene. This gene is the cellular homolog of viral raf gene (v-raf). The encoded protein is a MAP kinase kinasekinase (MAP3K), which functions downstream of the Ras family of membrane associated GTPases to which it binds directly. Once activated, the cellular RAF1 protein can phosphorylate to activate the dual specificity protein kinases MEK1 and MEK2, which in turn phosphorylate to activate the serine/threonine specific protein kinases, ERK1 and ERK2. Activated ERKs are pleiotropic effectors of cell physiology and play an important role in the control of gene expression involved in the cell division cycle, apoptosis, cell differentiation and cell migration. Mutations in this gene are associated with Noonan syndrome 5 and LEOPARD syndrome 2.

Overview

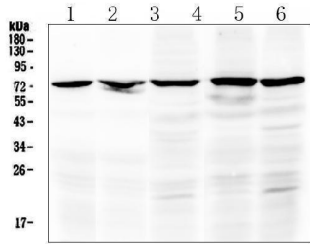
Product Name	Anti-Raf1 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Raf1 Antibody Picoband® catalog # A00446-1. Tested in Flow Cytometry, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees 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	Flow Cytometry, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
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	P04049

Technical Details

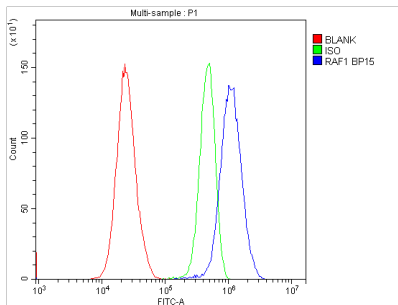
Immunogen	E. coli-derived human Raf1 recombinant protein (Position: Y364-Q451). Human Raf1 shares 98.9% amino acid (aa) sequence identity with both mouse and rat Raf1.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	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, 0.1-0.5ug/ml, Human, Mouse, Rat Flow Cytometry (Fixed), 1-3ug/1x10 ⁶ cells, Human

Anti-Raf1 Antibody Picoband® (A00446-1) Images



Western blot analysis of Raf1 using anti-Raf1 antibody (A00446-1). 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: rat kidney tissue lysate, Lane 2: mouse kidney tissue lysate, Lane 3: human MCF-7 whole cell lysate, Lane 4: human 22RV1 whole cell lysate, Lane 5: human HeLa whole cell lysate. 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-Raf1 antigen affinity purified polyclonal antibody (Catalog # A00446-1) 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 1:10000 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 Raf1 at approximately 73KD. The expected band size for Raf1 is at 73KD.



Flow Cytometry analysis of HeLa cells using anti-Raf1 antibody (A00446-1). Overlay histogram showing HeLa cells stained with PB10089 (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-Raf1 Antibody (A00446-1, 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.

1 Publications Citing This Product

1. PubMed ID: 27803850, The role of Dectin-1/Raf-1 signal cascade in innate immune of human corneal epithelial cells against Aspergillus fumigatus infection

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Anti-Raf1 Antibody

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