

Anti-PTPN13 Antibody Picoband®

Catalog Number: A02481-1

About PTPN13

Tyrosine-protein phosphatase non-receptor type 13 is an enzyme that in humans is encoded by the PTPN13 gene. The protein encoded by this gene is a member of the protein tyrosine phosphatase (PTP) family. PTPs are signaling molecules that regulate a variety of cellular processes including cell growth, differentiation, mitotic cycle, and oncogenic transformation. This PTP is a large intracellular protein. It has a catalytic PTP domain at its C-terminus and two major structural domains: a region with five PDZ domains and a FERM domain that binds to plasma membrane and cytoskeletal elements. This PTP was found to interact with, and dephosphorylate, Fas receptor and IkappaBalpha through the PDZ domains. This suggests it has a role in Fas mediated programmed cell death. This PTP was also shown to interact with GTPase-activating protein, and thus may function as a regulator of Rho signaling pathways. Four alternatively spliced transcript variants, which encode distinct proteins, have been reported.

Overview

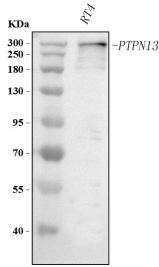
Product Name	Anti-PTPN13 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-PTPN13 Antibody Picoband® catalog # A02481-1. Tested in ELISA, WB, Flow Cytometry applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior 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, 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	Q12923

Technical Details

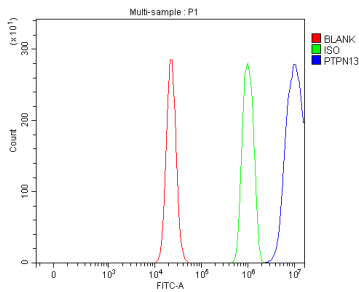
Immunogen	E.coli-derived human PTPN13 recombinant protein (Position: E1795-D2046).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG

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 ug/ml, Human Flow Cytometry (Fixed), 1-3 ug /1x10 ⁶ cells, Human ELISA, 0.1-0.5 ug/ml, -

Anti-PTPN13 Antibody Picoband® (A02481-1) Images



Western blot analysis of PTPN13 using anti-PTPN13 antibody (A02481-1). 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 30 ug of sample under reducing conditions. Lane 1: human RT4 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-PTPN13 antigen affinity purified polyclonal antibody (Catalog # A02481-1) 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 1:5000 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 PTPN13 at approximately 270 kDa. The expected band size for PTPN13 is at 270 kDa.



Flow Cytometry analysis of RT4 cells using anti-PTPN13 antibody (A02481-1). Overlay histogram showing RT4 cells stained with A02481-1 (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-PTPN13 Antibody (A02481-1, 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 (Red line) was also used as a control.

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Anti-PTPN13 Antibody

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