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Anti-Src Antibody Picoband®

Catalog Number: PB9059

About SRC

Sarcoma (Scr) is a proto-oncogenic tyrosine kinase originally discovered by J. Michael Bishop and Harold E. Varmus. belongs to a family of non-receptor tyrosine kinases called Src family kinases. The human SRC protooncogene was assigned to chromosome 20. Its gene is mapped to 20q12-q13. The discovery of Src family proteins has been instrumental to the modern understanding of cancer as a disease where normally healthy cellular signalling has gone awry. This proto-oncogene may play a role in the regulation of embryonic development and cell growth.

Overview

Product Name	Anti-Src Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-Src Antibody Picoband® catalog # PB9059. Tested in 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	Flow Cytometry, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
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	P12931

Technical Details

Immunogen	E.coli-derived human Src recombinant protein (Position: G2-D368). Human Src shares 97% and 99% amino acid (aa) sequences identity with mouse and rat Src, respectively.
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 IHC(P).
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.

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Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Human Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human Flow Cytometry (Fixed), 1-3 ug/1x10^6 cells, Human

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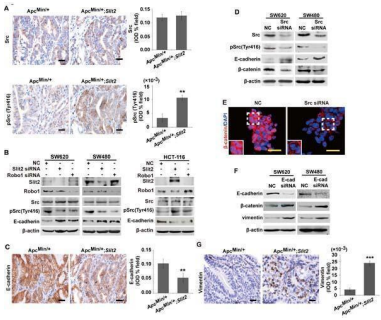
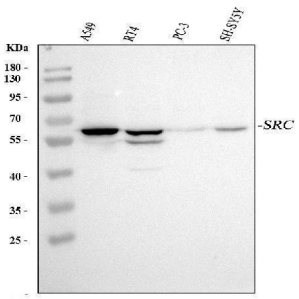
Anti-Src Antibody Picoband® (PB9059) Images



Slit2/Robo1 signaling activates the Src-mediated inhibition of E-cadherin. IHC analysis of the expression of total Src and pSrc (Tyr416) in the tumor tissues of Apc Min/+ and Apc Min/+ ; Slit2 mice (A). Inactivation of Slit2/Robo1 significantly reduced the expression of pSrc (Tyr 416) in SW620 and SW480 cells, and activation of Slit2/Robo1 signaling through overexpressing Slit2 or Robo1 expression promotes pSrc (Tyr 416) expression in HCT-116 cells (B). IHC analysis of the expression of E-cadherin in the tumor tissues of the Apc Min/+ and Apc Min/+ ; Slit2 mice (C). Inactivation of Src signaling significantly enhances the expression of E-cadherin but inhibits the expression of beta-cateninin in SW620 and SW480 cells (D). Src inactivation in SW620 and SW480 cells also led to a reduced nuclear translocation of beta-catenin (E). Inhibition of E-cadherin expression through siRNA technique could promote the expression of beta-cateninin and vimentin in SW620 and SW480 cells (F). IHC analysis of the expression of vimentin in the tumor tissues of Apc Min/+ and Apc Min/+ ; Slit2 mice (G). The data in IHC staining are representative of 11 mice per group (All mice were 24-week-old). The results of IHC were determined using IPP software, and the data were expressed as the mean ±S.D. *: P < 0.05, **: P < 0.01. Scale bars: 20 um (A, C and G) and 25 um (E).Index in PubMed under a CC BY license. PMID: 25605242



Western blot analysis of Src using anti-Src antibody (PB9059). 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 A549 whole cell lysates, Lane 2: human RT4 whole cell lysates, Lane 3: human PC-3 whole cell lysates, Lane 4: human SH-SY5Y 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-Src antigen affinity purified polyclonal antibody (Catalog # PB9059) 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 Src at approximately 60 kDa. The expected band size for Src is at 60 kDa.

Flow Cytometry analysis of HepG2 cells using anti-Src antibody (PB9059). Overlay histogram showing HepG2 cells stained with PB9059 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were

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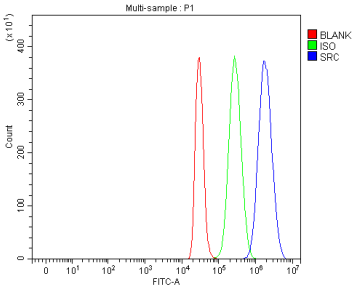
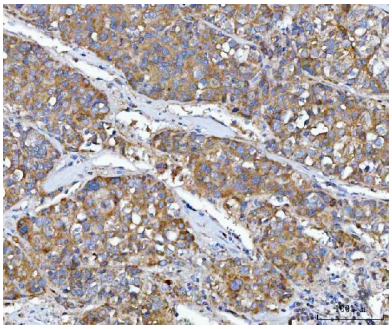
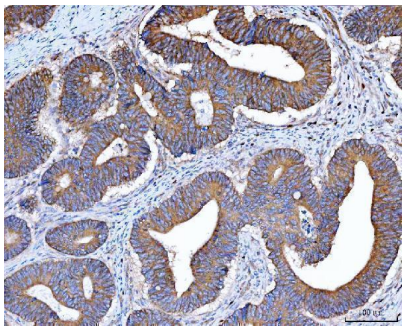


blocked with 10% normal goat serum. And then incubated with rabbit anti-Src Antibody (PB9059, 1 ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was 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.



IHC analysis of Src using anti-Src antibody (PB9059). Src was detected in a paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-Src Antibody (PB9059) 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 Src using anti-Src antibody (PB9059). Src was detected in a paraffin-embedded section of human rectal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-Src Antibody (PB9059) 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.

5 Publications Citing This Product

1. PubMed ID: 10.18632/oncotarget.3060, Slit2/Robo1 signaling promotes intestinal tumorigenesis through Src-mediated activation of the Wnt/beta-catenin pathway

2. PubMed ID: 10.2147/DDDT.S265198, Integrated Network Pharmacology Analysis and Experimental Validation to Reveal the Mechanism of Anti-Insulin Resistance Effects of Moringa oleifera Seeds

3. PubMed ID: 10.1016/j.ecoenv.2021.112257, Increased secretion of VEGF-C from SiO2-induced pulmonary macrophages promotes lymphangiogenesis through the Src/eNOS pathway in silicosis

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Anti-Src Antibody

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