

## Anti-STAT5b Antibody Picoband®

Catalog Number: PB9512

### About STAT5B

STAT5B (Signal transducer and activator of transcription 5B) is a protein that in humans is encoded by the STAT5B gene. STAT5B orthologs have been identified in most placentals for which complete genome data are available. By FISH, Lin et al. (1996) mapped STAT5B to 17q11.2. The protein encoded by this gene is a member of the STAT family of transcription factors. In response to cytokines and growth factors, STAT family members are phosphorylated by the receptor associated kinases, and then form homo- or heterodimers that translocate to the cell nucleus where they act as transcription activators. This protein mediates the signal transduction triggered by various cell ligands, such as IL2, IL4, CSF1, and different growth hormones. It has been shown to be involved in diverse biological processes, such as TCR signaling, apoptosis, adult mammary gland development, and sexual dimorphism of liver gene expression. This gene was found to fuse to retinoic acid receptor-alpha (RARA) gene in a small subset of acute promyelocytic leukemias (APML). The dysregulation of the signaling pathways mediated by this protein may be the cause of the APML.

### Overview

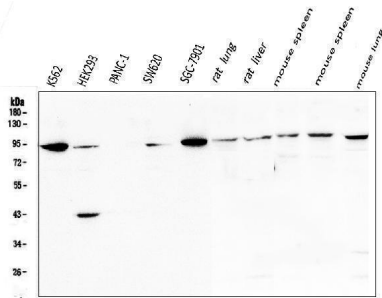
Product Name	Anti-STAT5b Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-STAT5b Antibody Picoband® catalog # PB9512. Tested in Flow Cytometry, IF, ICC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody 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, IF, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> , and 0.05 mg Na <sub>3</sub> N. *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
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	P51692

### Technical Details

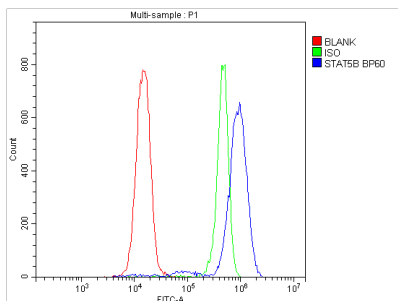
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human STAT5b, different from the related mouse and rat sequences by two amino acids.
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Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for ICC.
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 Immunocytochemistry/Immunofluorescence, 2ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10 <sup>6</sup> cells, Human

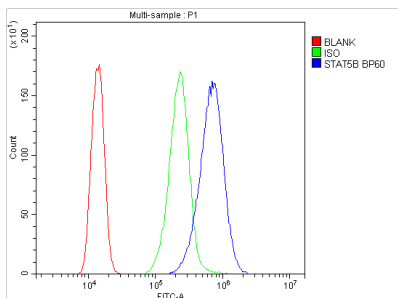
## Anti-STAT5b Antibody Picoband® (PB9512) Images



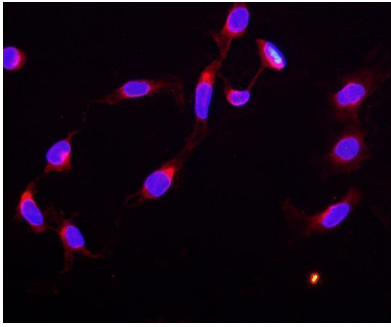
Western blot analysis of STAT5b using anti-STAT5b antibody (PB9512). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: K562 Whole Cell Lysate, Lane 2: HEK293 Whole Cell Lysate, Lane 3: PANC-1 Whole Cell Lysate, Lane 4: SW620 Whole Cell Lysate, Lane 5: SGC-7901 Whole Cell Lysate, Lane 6: Rat Lung Tissue Lysate, Lane 7: Rat Liver Tissue Lysate, Lane 8: Mouse Spleen Tissue Lysate, Lane 9: Mouse Spleen Tissue Lysate, Lane 10: Mouse Lung Tissue 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-STAT5b antigen affinity purified polyclonal antibody (Catalog # PB9512) 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 STAT5b at approximately 90KD. The expected band size for STAT5b is at 90KD.



Flow Cytometry analysis of Jurkat cells using anti-STAT5b antibody (PB9512). Overlay histogram showing Jurkat cells stained with PB9512 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-STAT5b Antibody (PB9512, 1ug/1x10<sup>6</sup> cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10<sup>6</sup> cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10<sup>6</sup>) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



Flow Cytometry analysis of A431 cells using anti-STAT5b antibody (PB9512). Overlay histogram showing A431 cells stained with PB9512 (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-STAT5b Antibody (PB9512, 1ug/1x10<sup>6</sup> cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10<sup>6</sup> cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10<sup>6</sup>) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



IF analysis of STAT5b using anti-STAT5b antibody (PB9512). STAT5b was detected in immunocytochemical section of U2OS cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2ug/mL rabbit anti-STAT5b Antibody (PB9512) overnight at 4°C. DyLight®594 Conjugated Goat Anti-Rabbit IgG (BA1142) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

## 1 Publications Citing This Product

1. PubMed ID: 33975196, Ocaranza P, Íñiguez G, Johnson MC, Cassorla F. Differential effects of androgens and estrogens over cellular GH sensitivity in HEPG2 cells. Growth Horm IGF Res. 2021 May 4;57-58:101390. doi:10.1016/j.ghir.2021.101390. Epub ahead of print. PMID:33975196.

Visit [bosterbio.com/anti-stat5b-picoband-trade-antibody-pb9512-boster.html](https://bosterbio.com/anti-stat5b-picoband-trade-antibody-pb9512-boster.html) to see all 1 publications.

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Anti-STAT5b Antibody

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