

## Anti-STAT1 Antibody Picoband®

Catalog Number: PB9510

### About STAT1

Signal transducer and activator of transcription 1 (STAT1) is a transcription factor which in humans is encoded by the STAT1 gene. The protein encoded by this gene is a member of the STAT protein family. 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 can be activated by various ligands including interferon-alpha, interferon-gamma, EGF, PDGF and IL6. This protein mediates the expression of a variety of genes, which is thought to be important for cell viability in response to different cell stimuli and pathogens. Two alternatively spliced transcript variants encoding distinct isoforms have been described.

### Overview

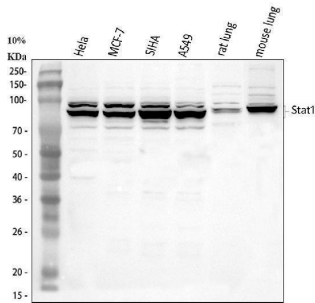
Product Name	Anti-STAT1 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-STAT1 Antibody Picoband® catalog # PB9510. Tested in Flow Cytometry, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees 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 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> .
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	P42224

### Technical Details

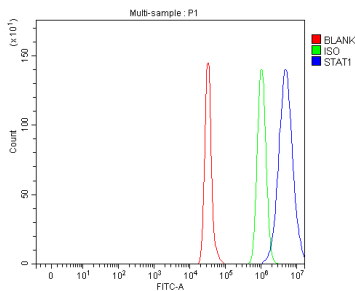
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human STAT1, different from the related mouse sequence by two amino acids.
Predicted Reactive Species	Hamster
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for 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), 1-3 ug/1x10 <sup>6</sup> cells, Human

## Anti-STAT1 Antibody Picoband® (PB9510) Images



Western blot analysis of STAT1 using anti-STAT1 antibody (PB9510). 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 HeLa whole cell lysates, Lane 2: human MCF-7 whole cell lysates, Lane 3: human SiHa whole cell lysates, Lane 4: human A549 whole cell lysates, Lane 5: rat lung tissue lysates, Lane 6: mouse lung tissue 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-STAT1 antigen affinity purified polyclonal antibody (Catalog # PB9510) 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 STAT1 at approximately 83, 91 kDa. The expected band size for STAT1 is at 83, 87 kDa.



Flow Cytometry analysis of A549 cells using anti-STAT1 antibody (PB9510). Overlay histogram showing A549 cells stained with PB9510 (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-STAT1 Antibody (PB9510, 1 ug/1x10<sup>6</sup> cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10<sup>6</sup> cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/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.

## 7 Publications Citing This Product

1. PubMed ID: 10.1007/s00467-009-1163-4, Expression of JAKs/STATs pathway molecules in rat model of rapid focal segmental glomerulosclerosis
2. PubMed ID: , Death signal transduction induced by co-immobilized TNF-alpha plus IFN-gamma and the development of polymeric anti-cancer drugs
3. PubMed ID: 31731208, Gao Y,Gui F,Li D,Zhang R,Sun Q,Guo X.Fluoride regulates the expression of extracellular matrix HSPG and related signaling pathways FGFR3 and Ihh/PTHrP feedback loop during endochondral ossification. Environ Toxicol Pharmacol.2020 Jan;73:103275.doi:10.1016/

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### Anti-STAT1 Antibody

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