

Anti-STAT1 Antibody

Catalog Number: PA1508

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
Reactive Species	Human, Mouse
Description	Boster Bio Anti-STAT1 Antibody catalog # PA1508. Tested in Flow Cytometry, WB applications. This antibody reacts with Human, Mouse.
Application	Flow Cytometry, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2mg Na2HPO4, 0.05 mg 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	P42224

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human STAT1.
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	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Western blot, 0.1-0.5ug/ml, Human</p> <p>Flow Cytometry, 1-3 ug/1x10⁶ cells, Human</p>

Anti-STAT1 Antibody (PA1508) Images

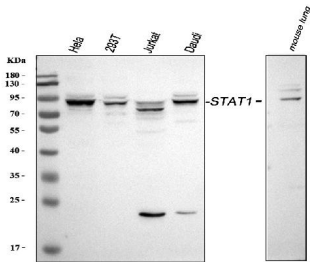


Figure 1. Western blot analysis of STAT1 using anti-STAT1 antibody (PA1508).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human HeLa whole cell lysates,
Lane 2: human 293T whole cell lysates,
Lane 3: human Jurkat whole cell lysates,
Lane 4: human Daudi whole cell lysates,
Lane 5: 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 # PA1508) 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 91 kDa. The expected band size for STAT1 is at 87 kDa.

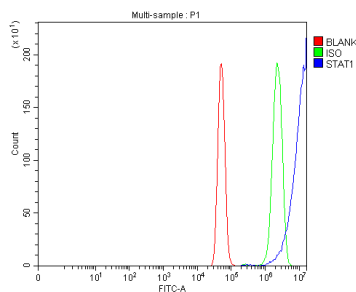


Figure 2. Flow Cytometry analysis of U251 cells using anti-STAT1 antibody (PA1508).
Overlay histogram showing U251 cells stained with PA1508 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-STAT1 Antibody (PA1508, 1 ug/1x10⁶ cells) for 30 min at 20°C. 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.

4 Publications Citing This Product

1. PubMed ID: 29393353, Hydrogen sulfide attenuates myocardial fibrosis in diabetic rats through the JAK/STAT signaling pathway
2. PubMed ID: 28903386, Synergistic inhibition of colon cancer growth by the combination of methylglyoxal and silencing of glyoxalase I mediated by the STAT1 pathway
3. PubMed ID: 24625919, Song Cg, Yang X, Min Lq, Liu Cx, Zhao Cs. Neuro Endocrinol Lett. 2014;35(1):68-72. The Effect Of Procyanidin On Expression Of Stat1 In Type 2 Diabetes Mellitus Sd Rats With Focal Cerebral Ischemia.

Visit bosterbio.com/anti-stat1-antibody-pa1508-boster.html to see all 4 publications.

Submit a product review to Biocompare.com

Submit a review of this product to Biocompare.com to receive a \$20 Amazon.com giftcard! Your reviews help your fellow scientists make the right decisions. Thank you for your contribution.



Anti-STAT1 Antibody