

Anti-STAT1 Antibody

Catalog Number: PA1075

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

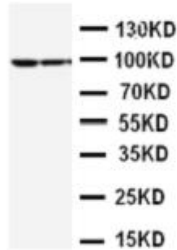
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|----------------------|---|
| Product Name | Anti-STAT1 Antibody |
| Reactive Species | Human, Mouse, Rat |
| Description | Boster Bio Anti-STAT1 Antibody catalog # PA1075. Tested in WB applications. This antibody reacts with Human, Mouse, Rat. |
| Application | WB |
| Clonality | Polyclonal |
| Formulation | Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Thimerosal, 0.05mg NaN ₃ . |
| 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

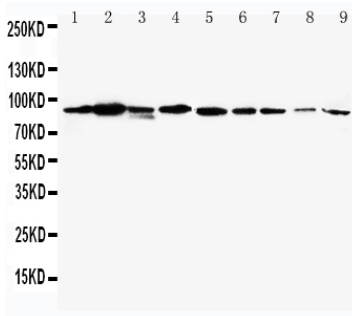
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| Immunogen | A synthetic peptide corresponding to a sequence in the middle region of human STAT1, different from the related mouse sequence by one amino acid. |
| Predicted Reactive Species | Hamster |
| Recommended Detection Systems | Boster recommends 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, Mouse, Rat</p> |

Anti-STAT1 Antibody (PA1075) Images



Anti-STAT1 antibody, PA1075, Western blotting
Lane 1: MCF-7 Cell Lysate
Lane 2: HELA Cell Lysate



Anti-STAT1 antibody, PA1075, Western blotting
Lane 1: Mouse Heart Tissue Lysate
Lane 2: Mouse Liver Tissue Lysate
Lane 3: Mouse Brain Tissue Lysate
Lane 4: Mouse Kidney Tissue Lysate
Lane 5: Mouse Spleen Tissue Lysate
Lane 6: Mouse Thymus Tissue Lysate
Lane 7: Mouse Lung Tissue Lysate
Lane 8: Mouse Intestine Tissue Lysate
Lane 9: Mouse Ovary Tissue Lysate

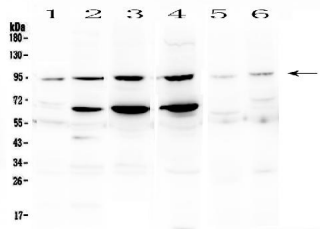


Figure 3. Western blot analysis of STAT1 using anti-STAT1 antibody (PA1075). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
Lane 1: rat spleen tissue lysates,
Lane 2: rat thymus tissue lysates,
Lane 3: rat testis tissue lysates,
Lane 4: mouse testis tissue lysates,
Lane 5: mouse kidney tissue lysates,
Lane 6: mouse spleen tissue lysates.
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-STAT1 antigen affinity purified polyclonal antibody (Catalog # PA1075) 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 STAT1 at approximately 91KD. The expected band size for STAT1 is at 87KD.

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-pa1075-boster.html to see all 4 publications.

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