

Anti-STAT3 Antibody

Catalog Number: PA1778

About STAT3

Stat3 (Signal transducer and activator of transcription 3), also called APRF, is a transcription factor which in humans is encoded by the STAT3 gene. The protein encoded by this gene is a member of the STAT protein family. The Stat3 gene is mapped on 17q21.2. Binding of IL5 to its specific receptor activates JAK2 which leads to the tyrosine phosphorylation of STAT3 proteins. Coexpression of STAT3-beta inhibits the transactivation potential of STAT3. STAT3 mediates the expression of a variety of genes in response to cell stimuli, and thus plays a key role in many cellular processes such as cell growth and apoptosis. The transcriptional coactivator p300 interacted physically with STAT3 at its amino terminus in a cytokine stimulation-independent manner, and with SMAD1 at its carboxyl terminus in a cytokine stimulation-dependent manner. In many human cancers and transformed cell lines, STAT3 is persistently activated, and in cell culture, active STAT3 is either required for transformation, enhances transformation, or blocks apoptosis. Mitochondrial STAT3 sustained altered glycolytic and oxidative phosphorylation activities characteristic of cancer cells.

Overview

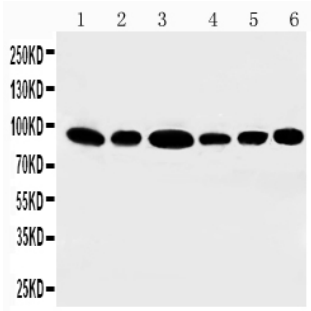
Product Name	Anti-STAT3 Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-STAT3 Antibody catalog # PA1778. Tested in IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.
Conjugate	FITC
Application	IHC, ICC, WB
Clonality	Monoclonal BAM-10
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg 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	Hamster
Uniprot ID	P40763

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human STAT3, different from the related rat and mouse sequences by one amino acid.
Predicted Reactive Species	Chicken
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) and ICC.

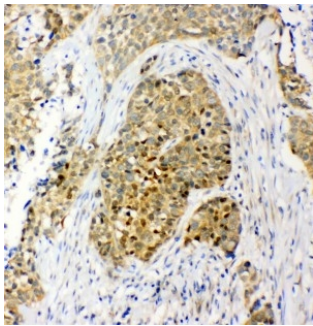
Cross Reactivity	No cross reactivity with other proteins
Form	Lyophilized
Concentration	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Purification	Immunogen Affinity Purified
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, By Heat Immunocytochemistry , 0.5-1ug/ml, Human, - Western blot, 0.1-0.5ug/ml, Human, Rat, Mouse

Anti-STAT3 Antibody (PA1778) Images



Anti-STAT3 antibody, PA1778, Western blotting

Lane 1: Rat Liver Tissue Lysate
Lane 2: Rat Brain Tissue Lysate
Lane 3: JURKAT Cell Lysate
Lane 4: SMMC Cell Lysate
Lane 5: MCF-7 Cell Lysate
Lane 6: HELA Cell Lysate



Anti-STAT3 antibody, PA1778, IHC(P)

IHC(P): Human Lung Cancer Tissue

8 Publications Citing This Product

1. PubMed ID: 22938476, Zhao X, Sun X, Li XL. Asian Pac J Cancer Prev. 2012;13(6):2873-7. Expression And Clinical Significance Of Stat3, P-Stat3, And Vegf-C In Small Cell Lung Cancer.
2. PubMed ID: 17392578, Hu Cp, Feng Jt, Tang Yl, Zhu Jq, Lin Mj, Yu Me. Mediators Inflamm. 2006;2006(5):84829. Lif Upregulates Expression Of Nk-1R In Nhbe Cells.
3. PubMed ID: 24519067, Zhang B, Lu Z, Hou Y, Hu J, Wang C. Tumour Biol. 2014 Jun;35(6):5401-7. Doi: 10.1007/S13277-014-1704-8. Epub 2014 Feb 12. The Effects Of Stat3 And Survivin Silencing On The Growth Of Human Bladder Carcinoma Cells.

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