

Datasheet for ABIN3043693
anti-STAT1 antibody (Middle Region)



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Overview

Quantity:	100 µg
Target:	STAT1
Binding Specificity:	AA 364-378, Middle Region
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This STAT1 antibody is un-conjugated
Application:	Western Blotting (WB)

Product Details

Purpose:	Rabbit IgG polyclonal antibody for Signal transducer and activator of transcription 1-alpha/beta(STAT1) detection. Tested with WB in Human,Mouse,Rat.
Immunogen:	A synthetic peptide corresponding to a sequence in the middle region of human STAT1(364-378aa FDKDVNERNTVKGFR), different from the related mouse sequence by one amino acid.
Sequence:	FDKDVNERNT VKGFR
Isotype:	IgG
Cross-Reactivity (Details):	No cross reactivity with other proteins.
Characteristics:	<p>Rabbit IgG polyclonal antibody for Signal transducer and activator of transcription 1-alpha/beta(STAT1) detection. Tested with WB in Human,Mouse,Rat.</p> <p>Gene Name: signal transducer and activator of transcription 1, 91 kDa</p> <p>Protein Name: Signal transducer and activator of transcription 1-alpha/beta</p>

Product Details

Purification: Immunogen affinity purified.

Target Details

Target: STAT1

Alternative Name: STAT1 ([STAT1 Products](#))

Background: 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.

Synonyms: Signal transducer and activator of transcription 1 91kD antibody|DKFZp686B04100 antibody|ISGF 3 antibody|ISGF-3 antibody|OTTHUMP00000163552 antibody|OTTHUMP00000165046 antibody|OTTHUMP00000165047 antibody|OTTHUMP00000205845 antibody|Signal transducer and activator of transcription 1 91 kDa antibody|Signal transducer and activator of transcription 1 alpha/beta antibody|Signal transducer and activator of transcription 1 antibody|Signal transducer and activator of transcription 1, 91kD antibody|Signal transducer and activator of transcription 1-alpha/beta antibody|Signal Transductor and Activator of Transcription 1 antibody|STAT 1 antibody|STAT 91 antibody|Stat1 antibody|STAT1_HUMAN antibody|STAT91 antibody|Transcription factor ISGF 3 components p91 p84 antibody|Transcription factor ISGF-3 components p91/p84 antibody

UniProt: [P42224](#)

Pathways: [JAK-STAT Signaling](#), [RTK Signaling](#), [Interferon-gamma Pathway](#), [Response to Growth Hormone Stimulus](#), [Cellular Response to Molecule of Bacterial Origin](#), [Positive Regulation of Endopeptidase Activity](#), [Hepatitis C](#), [CXCR4-mediated Signaling Events](#)

Application Details

Application Notes: WB: Concentration: 0.1-0.5 µg/mL, Tested Species: Human, Mouse, Rat

Application Details

Notes: Tested Species: Species with positive results. Predicted Species: Species predicted to be fit for the product based on sequence similarities.

Other applications have not been tested. Optimal dilutions should be determined by end users.

Comment: Antibody can be supported by chemiluminescence kit ABIN921124 in WB.

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.

Concentration: 500 µg/mL

Buffer: Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na₂HPO₄, 0.05 mg Thimerosal, 0.05 mg Sodium azide.

Preservative: Thimerosal (Merthiolate), Sodium azide

Precaution of Use: This product contains Sodium azide and Thimerosal (Merthiolate): POISONOUS AND HAZARDOUS SUBSTANCES which should be handled by trained staff only.

Handling Advice: Avoid repeated freezing and thawing.

Storage: 4 °C/-20 °C

Storage Comment: At -20°C for one year. After reconstitution, at 4°C for one month.
It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.

Publications

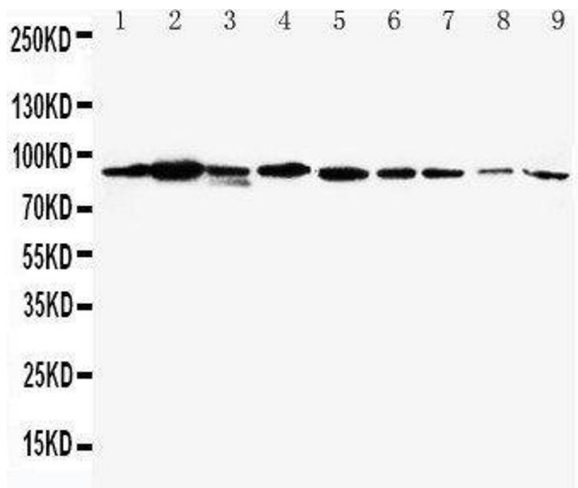
Product cited in: Liu, Li, Liang, Li, Jiang, Chu, Yang: "Hydrogen sulfide attenuates myocardial fibrosis in diabetic rats through the JAK/STAT signaling pathway." in: **International journal of molecular medicine**, Vol. 41, Issue 4, pp. 1867-1876, (2018) ([PubMed](#)).

Song, Yang, Min, Liu, Zhao: "The effect of procyanidin on expression of STAT1 in type 2 diabetes mellitus SD rats with focal cerebral ischemia." in: **Neuro endocrinology letters**, Vol. 35, Issue 1, pp. 68-72, (2014) ([PubMed](#)).

Gong, Cao, Jiang, Zhou, Liu: "Hepatitis C virus non-structural 5A abrogates signal transducer

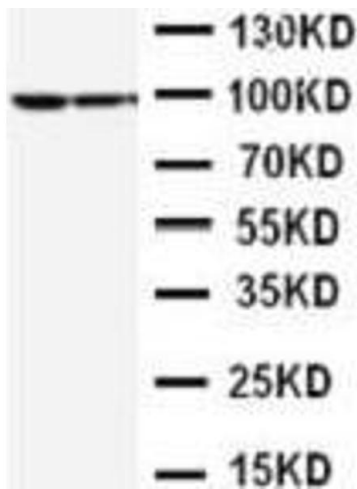
and activator of transcription-1 nuclear translocation induced by IFN-alpha through dephosphorylation." in: **World journal of gastroenterology**, Vol. 13, Issue 30, pp. 4080-4, (2007) ([PubMed](#)).

Images



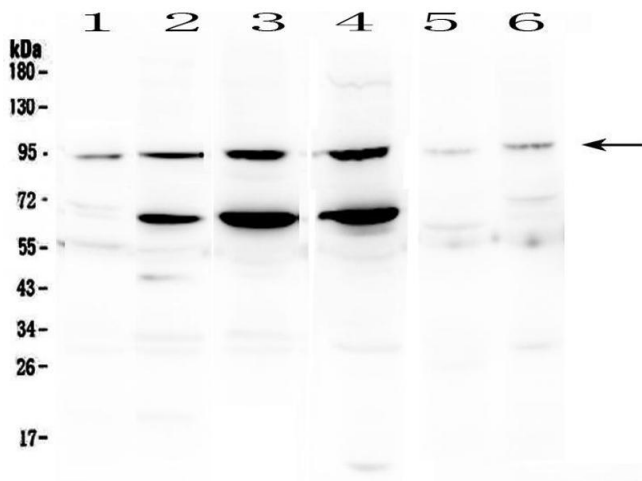
Western Blotting

Image 1. Lane 9: Mouse Ovary Tissue Lysate



Western Blotting

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



Western Blotting

Image 3. Western blot analysis of STAT1 using anti- STAT1 antibody . 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 #) at 0.5 µg/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.