

## STAT1 Polyclonal Antibody

Catalog No: #21044



Package Size: #21044-1 50ul #21044-2 100ul

Orders: [order@signalwayantibody.com](mailto:order@signalwayantibody.com)Support: [tech@signalwayantibody.com](mailto:tech@signalwayantibody.com)

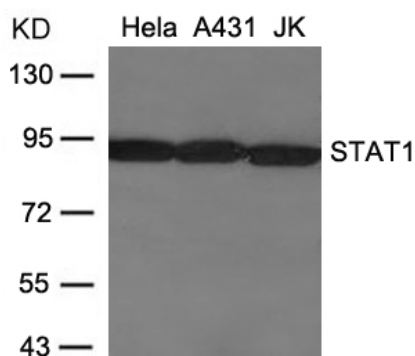
## Description

Product Name	STAT1 Polyclonal Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antibodies were produced by immunizing rabbits with synthetic peptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific peptide.
Applications	WB IHC
Species Reactivity	Human;Mouse;Rat
Specificity	The antibody detects endogenous level of total STAT1 protein.
Immunogen Type	Peptide-KLH
Immunogen Description	Peptide sequence around aa. 699~703 (T-G-Y-I-K) derived from Human STAT1.
Conjugates	Unconjugated
Target Name	STAT1
Other Names	CANDF7, ISGF-3, STAT91
Accession No.	Swiss-Prot: P42224NCBI Protein: NP_009330.1
Calculated MW	84kDa
SDS-PAGE MW	84,91kDa
Concentration	1.0mg/ml
Formulation	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg <sup>2+</sup> and Ca <sup>2+</sup> ), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C for long term preservation (recommended). Store at 4°C for short term use.

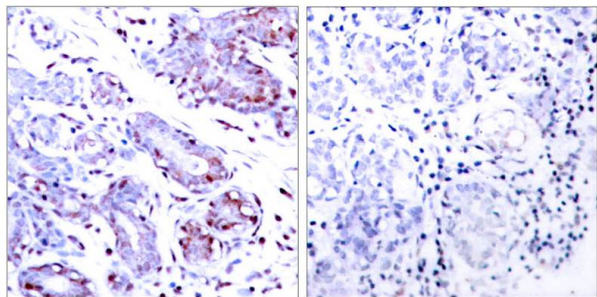
## Application Details

WB 1:1000-2000; IHC 1:50-300;

## Images



Western blot analysis of extracts from HeLa, A431 and JK cells using STAT1(Ab-701) Antibody #21044.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using STAT1(Ab-701) Antibody #21044(left) or the same antibody preincubated with blocking peptide(right).

## Background

Signal transducer and activator of transcription that mediates signaling by interferons (IFNs). Following type I IFN (IFN- $\alpha$  and IFN- $\beta$ ) binding to cell surface receptors, Jak kinases (TYK2 and JAK1) are activated, leading to tyrosine phosphorylation of STAT1 and STAT2. The phosphorylated STATs dimerize, associate with ISGF3G/IRF-9 to form a complex termed ISGF3 transcription factor, that enters the nucleus. ISGF3 binds to the IFN stimulated response element (ISRE) to activate the transcription of interferon stimulated genes, which drive the cell in an antiviral state. In response to type II IFN (IFN- $\gamma$ ), STAT1 is tyrosine- and serine-phosphorylated. It then forms a homodimer termed IFN- $\gamma$ -activated factor (GAF), migrates into the nucleus and binds to the IFN  $\gamma$  activated sequence (GAS) to drive the expression of the target genes, inducing a cellular antiviral state.

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Meraz M A, et al. (1996) Cell. 84: 431-442.

Wakao H, et al. (1994) EMBO J. 13: 2182-2191.

Demoulin J, B. et al. (1999) J Biol Chem. 274: 25855-258

Ihle J N, et al. (1994) Trends Biochem Sci. 19: 222-227.

## Published Papers

Xiang Cheng, Jing Wang, Ni Xia et al., A guanidine-rich regulatory oligodeoxy-nucleotide improves type-2 diabetes in obese mice by blocking T-cell differentiation., EMBO Mol Med., 4(10):1112-1125 (2012)

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et al., Danzhi Jiangtang Capsule ameliorates kidney injury via inhibition of the JAK-STAT signaling pathway and increased antioxidant capacity in STZ-induced diabetic nephropathy rats. In Biosci Trends. On 2019 Jan 22 by Sun M, Bu W et al.. PMID: 30606979 , , (2018)

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et al., A thiazole-derived oridonin analogue exhibits antitumor activity by directly and allosterically inhibiting STAT3. In J Biol Chem on 2019 Nov 15; by Shen X, Zhao L, et al.. PMID:31594861 , , (2019)

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et al., DJC suppresses Advanced Glycation End Products-Induced JAK-STAT signaling and ROS in mesangial cells. In Evid Based Complement Alternat Med on 2017 May 29 by Min Sun, Yan Li , et al.. PMID: 28630633 , , (2017)

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et al., Expression of interferon effector gene SART1 correlates with interferon treatment response against hepatitis B infection. In Mediators Inflamm on 2016 by Yong Li, Chuanlong Zhu et al.. PMID: 28077916 , , (2016)

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et al., Mycobacterium tuberculosis EspB protein suppresses interferon- $\gamma$ -induced autophagy in murine macrophages. In J Microbiol Immunol Infect on 2016 Dec by DanDan Huang, Lang Bao et al.. PMID:25641595 , , (2016)

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et al., IL-17 intensifies IFN- $\gamma$ -induced NOS2 upregulation in RAW 264.7 cells by further activating STAT1 and NF- $\kappa$ B. In Int J Mol Med on 2016

by Qiyue Gao, Yang Liu et al.. PMID:26677135 , , (2016)

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et al., Costunolide improved dextran sulfate sodium-induced acute ulcerative colitis in mice through NF- $\kappa$ B, STAT1/3, and Akt signaling pathways. In Int Immunopharmacol on 2020 Jul by Fan Xie, Hai Zhang, et al.. PMID:32413737 , , (2020)

[PMID:32413737](#)

Siqi Zhang;Meiqi Sun;Zehao Li;Dandan Liu;Cheng Hu;Fang Fang;Guoqing Wang et al., Effect of silencing CD147 on glycolysis in prostate cancer LNCaP cells, , (2023)

[PMID:](#)

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Note: This product is for in vitro research use only and is not intended for use in humans or animals.