

## STAT1(Ab-701) Antibody

Catalog No: #21044



Package Size: #21044-1 50ul #21044-2 100ul #21044-4 25ul

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## Description

Product Name	STAT1(Ab-701) 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	Hu
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.
Target Name	STAT1
Other Names	CANDF7, ISGF-3, STAT91
Accession No.	Swiss-Prot: P42224NCBI Protein: NP_009330.1
SDS-PAGE MW	84,91kd
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.

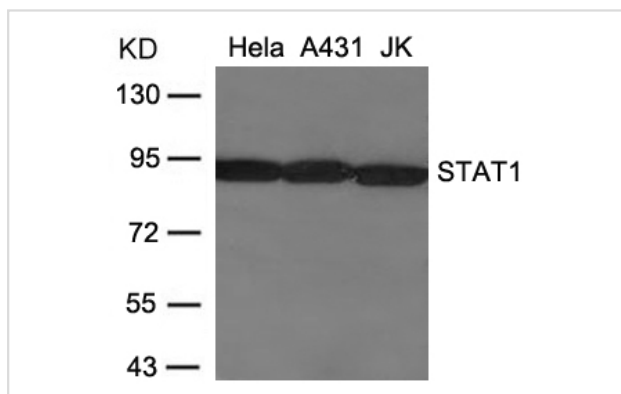
## Application Details

Predicted MW: 84,91kd

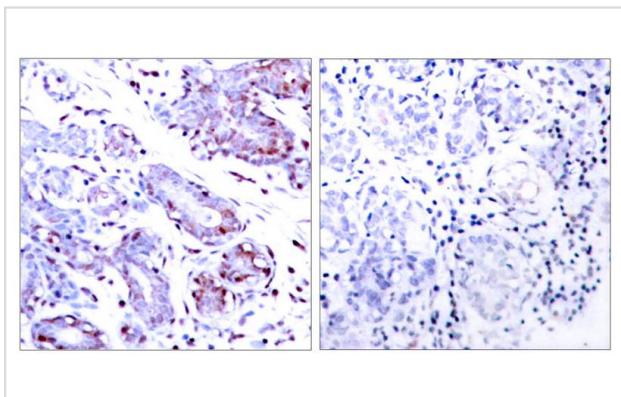
Western blotting: 1:500~1:1000

Immunohistochemistry: 1:50~1:100

## 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.

Heim M H, (1999) J Recept Signal Transduct Res. 19: 75-120.

Durbin J E, et al. (1996) Cell. 84: 443-450.

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):1112B-C1125(2012)

[PMID:23027613](https://pubmed.ncbi.nlm.nih.gov/23027613/)

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