

## STAT1(Ab-727) Antibody

Catalog No: #21177

Package Size: #21177-1 50ul #21177-2 100ul

Orders: order@signalwayantibody.com

Support: tech@signalwayantibody.com

## Description

|                       |   |
|-----------------------|---|
| Product Name          | STAT1(Ab-727) 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 Ms   |
| Specificity           | The antibody detects endogenous level of total STAT1 protein.   |
| Immunogen Type        | Peptide-KLH   |
| Immunogen Description | Peptide sequence around aa.725~729 (P-M-S-P-E) derived from Human STAT1.  |
| Target Name           | STAT1   |
| Other Names           | ISGF-3; STAT91;   |
| Accession No.         | Swiss-Prot: P42224NCBI Protein: NP_009330.1   |
| Uniprot               | P42224  |
| GeneID                | 6772;   |
| 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.   |

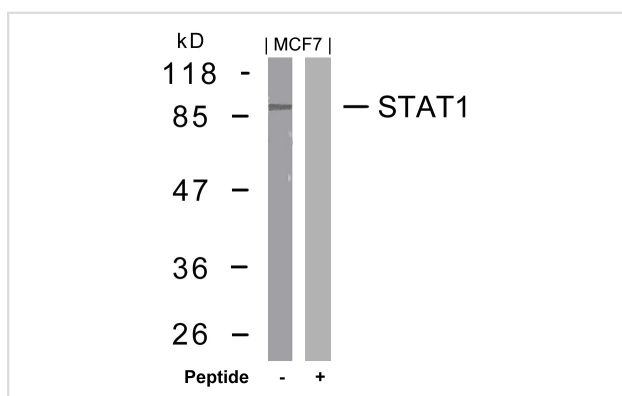
## Application Details

Predicted MW: 91kd

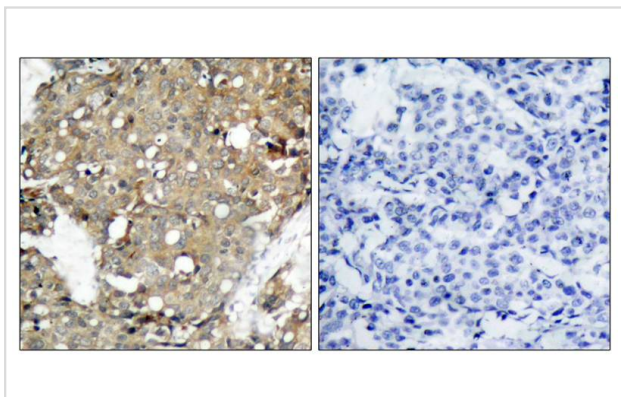
Western blotting: 1:500~1:1000

Immunohistochemistry: 1:50~1:100

## Images



Western blot analysis of extracts from MCF7 cells using STAT1(Ab-727) Antibody #21177 and the same antibody preincubated with blocking peptide.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using STAT1(Ab-727) Antibody #21177(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.

Yuan ZM, et al. (1999) *Nature*.399 (6738): 814-817.

Schindler C, et al. (1992) *Proc. Natl. Acad. Sci. U.S.A* 89:7836-7839.

Strausberg R.L (2002). *Proc. Natl. Acad. Sci. U.S.A.* 99:16899-16903.

Quelle F.W., (1995) *J. Biol. Chem.* 270:20775-20780.

Note: This product is for in vitro research use only