



# STAT1 (Ab-727)

## Antibody

### #21177

**Catalog Number:** 21177-1, 21177-2

**Amount:** 50µg/50µl, 100µg/100µl

**Swiss-Prot No. :** P42224

**Form of Antibody:** Rabbit IgG 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/Stability:** Store at -20°C/1 year

**Immunogen:** The antiserum was produced against synthesized non-phosphopeptide derived from human STAT1 around the phosphorylation site of serine 727 (P-M-S<sup>P</sup>-P-E).

**Purification:** The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

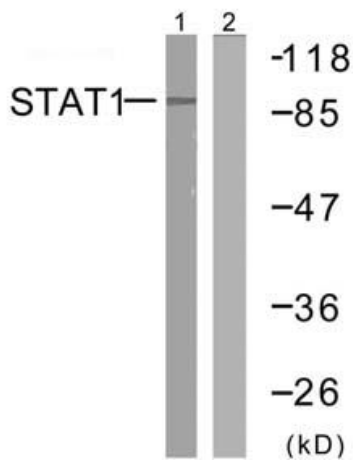
**Specificity/Sensitivity:** STAT1 (Ab-727) antibody detects endogenous levels of total STAT1 protein.

**Reactivity:** Human, Mouse, Rat

**Applications:**

Predicted MW: 91 kd

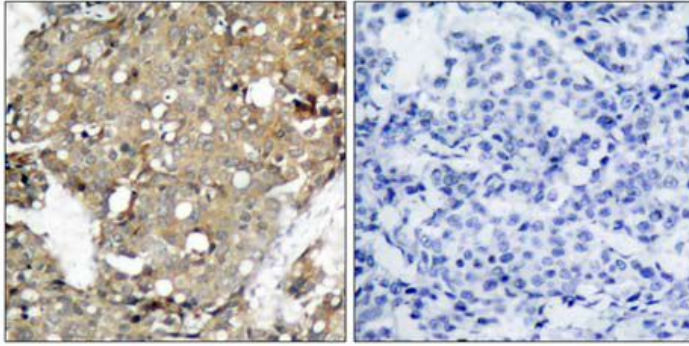
WB: 1:500~1:1000 IHC: 1:50~1:100



Etoposide + +

Peptide - +

Western blot analysis of extracts from MCF7 cells using STAT1 (Ab-727) antibody (#21177).



Peptide - +

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

**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

**References:**

- 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.