

### 35-1043: Polyclonal Antibody to STAT1 (Phospho-Tyr701)

<b>Clonality :</b>	Polyclonal
<b>Application :</b>	IHC,WB
<b>Reactivity :</b>	Mouse,Human
<b>Gene :</b>	STAT1
<b>Gene ID :</b>	6772
<b>Uniprot ID :</b>	P42224
<b>Format :</b>	Purified
<b>Alternative Name :</b>	CANDF7,ISGF-3,STAT91
<b>Isotype :</b>	Rabbit IgG
<b>Immunogen Information :</b>	Peptide sequence around phosphorylation site of tyrosine 701 (T-G-Y(p)-I-K) derived from Human STAT1.

#### Description

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.

#### Product Info

<b>Amount :</b>	50 $\mu$ l / 100 $\mu$ l
<b>Content :</b>	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.
<b>Storage condition :</b>	Store the antibody at 4°C, stable for 6 months. For long-term storage, store at -20°C. Avoid repeated freeze and thaw cycles.

#### Application Note

Predicted MW: 84,91kd, Western blotting: 1:500~1:1000, Immunohistochemistry: 1:50~1:100

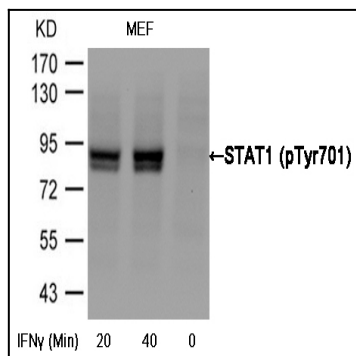


Figure 1: Western blot analysis of extracts from MEF cells untreated or treated with interferon- $\gamma$  (IFN $\gamma$ ) using STAT1 (Phospho-Tyr701) Antibody 35-1043 .

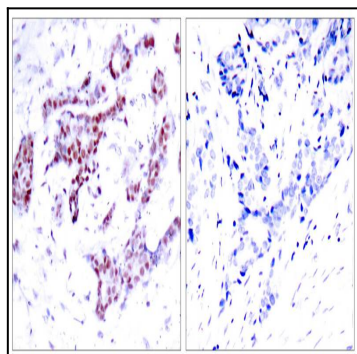


Figure 2: Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using STAT1(Phospho-Tyr701) Antibody 35-1043 (left) or the same antibody preincubated with blocking peptide(right).

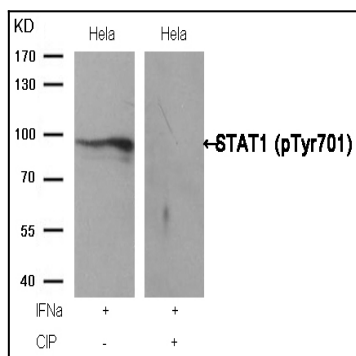


Figure 3: Western blot analysis of extracts from HeLa cells, treated with IFN $\alpha$  or calf intestinal phosphatase (CIP), using STAT1 (Phospho-Tyr701) Antibody 35-1043 .