

## STAT1

Cat#:R1408-2

Quantity: 100ul

**Product Type:** Rabbit polyclonal IgG, primary antibodies

**Species reactivity:** Human, mouse, rat

**Positive control:** HeLa, 293, A431, NIH/3T3

**Subcellular location:** Cytoplasm, nucleus

**Database links:** SwissProt P42224 (human)

**Applications:** ICC, WB

**Lot#:** See on the tube

**Form:** Liquid

**Molecular Wt.:** 87 kDa

**Description:** STAT1 is a member of the Signal Transducers and Activators of Transcription family of transcription factors. STAT1 is involved in upregulating genes due to a signal by either type I, type II, or type III interferons. In response to IFN- $\gamma$  stimulation, STAT1 forms homodimers or heterodimers with STAT3 that bind to the GAS (Interferon-**G**amma-**A**ctivated **S**equences) promoter element; in response to either IFN- $\alpha$  or IFN- $\beta$  stimulation, STAT1 forms a heterodimer with STAT2 that can bind the ISRE (Interferon-**S**timulated **R**esponse **E**lement) promoter element. The phosphorylated STATs dimerize and 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 IFN-stimulated genes (ISG), which drive the cell in an antiviral state. In response to type II IFN (IFN-gamma), STAT1 is tyrosine- and serine-phosphorylated.

**Specificity/Source:** This antibody is produced by immunizing rabbits with recombinant protein of STAT1.

**Recommended Dilutions:**

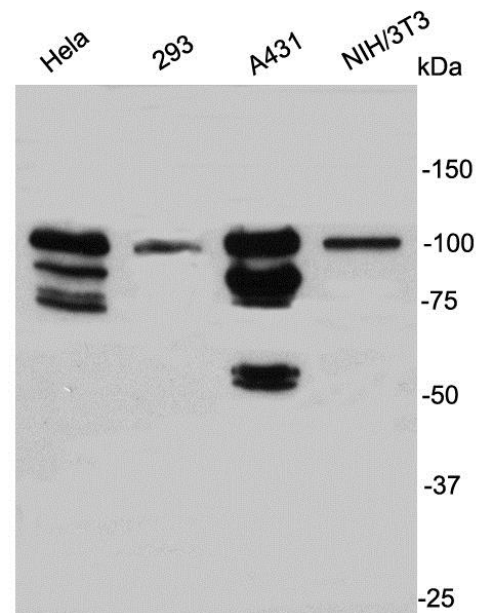
WB: 1:1,000

ICC: 1:200

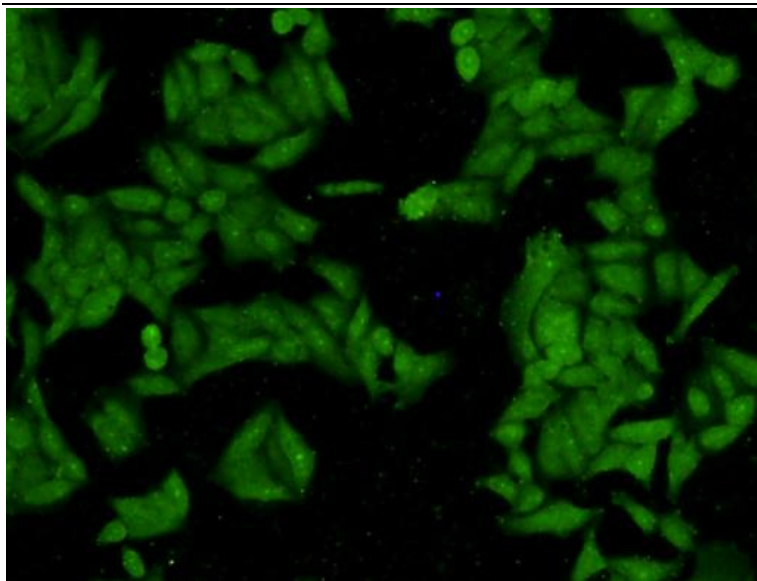
**Storage Buffer:** 1\* TBS (pH7.4), 0.5% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Store at +4°C after thawing. Aliquot store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

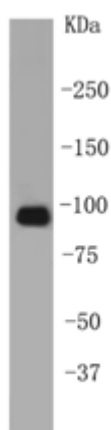
**Purity:** Peptide affinity purified



**Fig1:** Western blot analysis on cell lysates using anti- STAT1 rabbit polyclonal antibodies.



**Fig2:** ICC staining STAT1 in HeLa cells (green). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



**Fig3:** Western blot analysis on zebra fish lysates using anti- STAT1 rabbit polyclonal antibodies.

#### Background References:

1. "Fibroblast growth factor receptor-induced phosphorylation of STAT1 at the Golgi apparatus without translocation to the nucleus." Citores L., Bai L., Sorensen V., Olsnes S. J. Cell. Physiol. 212:148-156(2007)
2. "Analysis of STAT1 activation by six FGFR3 mutants associated with skeletal dysplasia undermines dominant role of STAT1 in FGFR3 signaling in cartilage." Krejci P., Salazar L., Kashiwada T.A., Chlebova K., Salasova A., Thompson L.M., Bryja V., Kozubik A., Wilcox W.R. PLoS ONE 3:E3961-E3961(2008)
3. "A novel form of human STAT1 deficiency impairing early but not late responses to interferons." Kong X.F., Ciancanelli M., Al-Hajjar S., Alsina L., Zumwalt T., Bustamante J., Feinberg J., Audry M., Prando C., Bryant V., Kreins A., Bogunovic D., Halwani R., Zhang X.X., Abel L., Chaussabel D., Al-Muhsen S., Casanova J.L., Boisson-Dupuis S. Blood 116:5895-5906(2010)