



Affinity-Purified Rabbit Anti-phospho-STAT 1 (Y701) Antibody

Specificity: Human phospho-STAT 1 (Y701)	Size: 0.1 mg
Source: Rabbit	IgG Type: rabbit IgG

Background:

Signal transducer and activator of transcription that mediates signaling by interferons (IFNs). Following type I IFN (IFN-alpha and IFN-beta) binding 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.

Other Name: Signal transducer and activator of transcription 1-alpha/beta

Specificity:

Human: Positive

Application : For western blot analysis, an antibody concentration of 1 µg/ml is recommended

ELISA	Positive
Western blotting	Positive 1 mg/ml
Immunohistochemistry	Positive
Immunoprecipitation	Positive
Flow cytometry	Positive

Isotype: Rabbit IgG

Description: This antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding the phosphotyrosine sites.

Storage: Upon reconstitution, maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C to -70°C. Lyophilized samples are stable for twelve months from the date of receipt when stored at -20°C to -70°C

Format: Purified rabbit monoclonal antibody supplied in PBS with 0.02% (W/V) sodium azide. This antibody is first purified by protein G affinity chromatography. Then, the antibody fraction is peptide affinity purified in a 2-step procedure with the control and phosphorylated peptides. The phospho-specific antibody is eluted with high and low salt and neutralized immediately, followed by dialysis against PBS.

Precautions: This product is for research use only. Not for use in diagnostic or therapeutic procedures.

References:

1. [Basler C.F.](#); "Nipah virus V and W proteins have a common STAT1-binding domain yet inhibit STAT1 activation from the cytoplasmic and nuclear compartments, respectively."; *J. Virol.* 78:5633-5641(2004).
2. [Casanova J.L.](#); "Impaired response to interferon-alpha/beta and lethal viral disease in human STAT1 deficiency."; *Nat. Genet.* 33:388-391(2003).
3. [Casanova J.L.](#); "Impairment of mycobacterial but not viral immunity by a germline human STAT1 mutation."; *Science* 293:300-303(2001).