

## Human/Mouse Phospho-STAT1 (Y701) Antibody

Antigen Affinity-purified Polyclonal Rabbit IgG Catalog Number: AF2894

DESCRIPTION	
Species Reactivity	Human/Mouse
Specificity	Detects human STAT1 when phosphorylated at Y701 in Western blots.
Source	Polyclonal Rabbit IgG
Purification	Antigen Affinity-purified
Immunogen	Phosphopeptide containing human STAT1 Y701 site
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

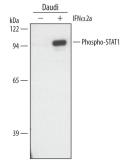
#### APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

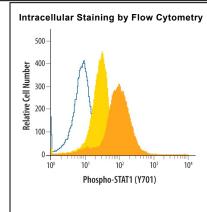
	Recommended Concentration	Sample
Western Blot	0.5 μg/mL	See Below
Intracellular Staining by Flow Cytometry	2.5 μg/10 <sup>6</sup> cells	See Below
Simple Western	5 μg/mL	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

### DATA

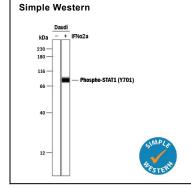
## Western Blot



Detection of Human Phospho-STAT1 (Y701) by Western Blot. Western blot shows lysates of Daudi human Burkitt's lymphoma cell line untreated (-) or treated (+) with Recombinant Human IFN-α2a for 20 minutes. PVDF membrane was probed with 0.5 μg/mL of Rabbit Anti-Human/Mouse Phospho-STAT1 (Y701) Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2894), followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). A specific band was detected for Phospho-STAT1 (Y701) at approximately 94 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 2.



Detection of Phospho-STAT1 in IFN-α-treated Daudi Human Cell Line by Flow Cytometry. Daudi human Burkitt's lymphoma cell line was unstimulated (light orange filled histogram) or treated with 500 units/mL Recombinant Human IFN-α (Catalog # 11100-1) for 20 minutes (dark orange filled histogram), then stained with Rabbit Anti-Human/Mouse Phospho-STAT1 (Y701) Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2894) or control antibody (Catalog # AB-105-C, open histogram), followed by Allophycocyanin-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # F0111). To facilitate intracellular staining, cells were fixed with paraformaldehyde and permeabilized with methanol.



Detection of Human Phospho-STAT1 (Y701) by Simple Western™. Simple Western Iane view shows lysates of Daudi human Burkitt's lymphoma cell line untreated (-) or treated (+) with Recombinant Human IFN-αA (Catalog # 11100-1) for 20 minutes, loaded at 0.2 mg/mL. A specific band was detected for Phospho-STAT1 (Y701) at approximately 86 kDa (as indicated) using 5 µg/mL of Rabbit Anti-Human/Mouse Phospho-STAT1 (Y701) Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2894). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

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Reconstitution
Shipping
Stability & Storage

## BACKGROUND

STAT1 (signal transducer and activator of transcription #1) is an 88 kDa member of the STAT family of cytoplasmic transcription factors. STAT members generally mediate cytokine, growth factor and hormone receptor signal transduction. STAT1 is associated with type I and II interferon signaling. All STATs contain an N-terminal oligomerization domain, a DNA-binding domain, and an SH2-association region. STAT1 is phosphorylated at Y701 by receptor-associated Janus kinases (JAKs) leading to STAT1 dimerization and subsequent translocation to the nucleus to activate gene transcription.



