

## 12-4106: Phospho-Stat1 (Tyr701) (Clone: 3E6) rabbit mAb

<b>Clonality :</b>	Monoclonal
<b>Clone Name :</b>	Stat1Y701-3E6
<b>Application :</b>	FACS
<b>Reactivity :</b>	Human, Mouse
<b>Conjugate :</b>	Unconjugated
<b>Format :</b>	Purified
<b>Alternative Name :</b>	Signal transducer and activator of transcription 1-alpha/beta, Transcription factor ISGF-3 components p91/p84
<b>Isotype :</b>	Rabbit IgG1k
<b>Immunogen Information :</b>	A synthetic phospho-peptide corresponding to residues surrounding Tyr701 of human phospho Stat1

### Description

Stat1 mediates the cellular response to IFN alpha, IFNB, and IFNg for the regulation of cell growth and the defense against viral and immune challenges. The Jak-Stat pathway plays a central role in the IFNg response, where Stat1 phosphorylation on Tyr701 causes homodimerization through its SH2 domain, translocation to the nucleus, and binding to gamma-activated sequence (GAS) elements. Early in the activation sequence, Stat1 is also phosphorylated at Ser727 through a mechanism involving PI3 kinase and Akt. Stat1 has been found to correlate with increased resistance to chemotherapeutic drugs. However, Stat1 activation of the immune system helps suppress tumor growth, and multiple melanomas and squamous-cell carcinomas have been known to downregulate Stat1 expression to evade immune surveillance.

### Product Info

<b>Amount :</b>	20 µl / 200 µl
<b>Content :</b>	1X PBS, 0.02% NaN <sub>3</sub> , 50% Glycerol, 0.1% BSA
<b>Storage condition :</b>	Store at -20°C. Avoid repeated freeze and thaw cycles.

### Application Note

1 µg/mL - 0.001 µg/mL. It is recommended that the reagent be titrated for optimal performance for each application. See product image legends for additional information.(0.5mg/ml)

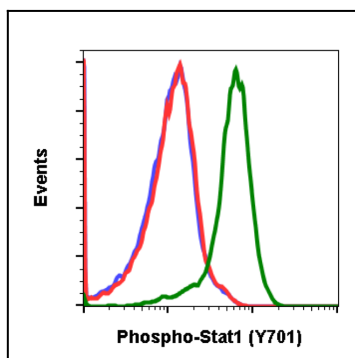


Fig-1: Flow cytometric analysis of U937 cells secondary antibody only negative control (blue) or untreated (red) or treated with IFN $\alpha$  IL-4 and pervanadate (green) using Phospho-Stat1 (Tyr701) antibody Stat1Y701-3E6 at 0.005 µg/mL.

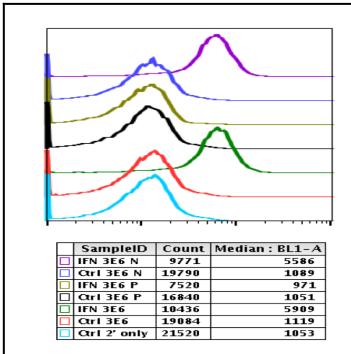


Fig 2 : Peptide blocking flow cytometric analysis of U937 cells secondary antibody only negative control (light blue) or untreated (red) or treated with IFN $\alpha$  IL-4 and pervanadate (green) or untreated and blocked with phospho-peptide (black) or treated and blocked with phospho peptide (gold) or untreated and blocked with non-phospho peptide (dark blue) or treated and blocked with non-phospho peptide (purple) using Phospho-Stat1 (Tyr701) antibody Stat1Y701-3E6 at 0.1 $\mu$ g/mL.

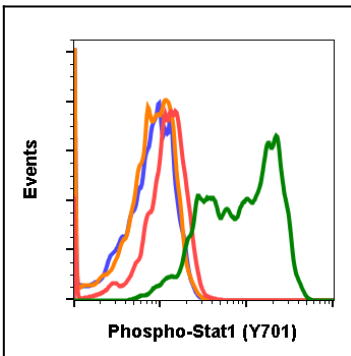


Fig-3: Flow cytometric analysis of NIH3T3 cells secondary antibody only negative control (blue) or 0.1  $\mu$ g/mL of isotype control (Cat# 12-4086) (orange) or treated with imatinib (red) or with pervanadate (green) using Phospho-Stat1 (Tyr701) antibody Stat1Y701-3E6 at 0.1  $\mu$ g/mL.

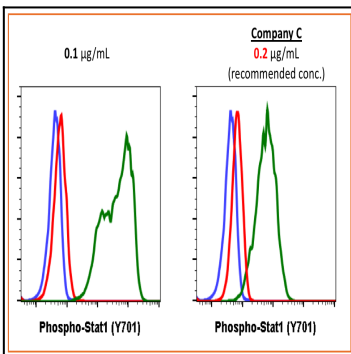


Fig-4: Flow cytometric analysis of U937 cells secondary antibody only negative control (blue) or untreated (red) or treated with IFN $\alpha$  + IL-4 + pervanadate (green) using 0.1  $\mu$ g/mL of Phospho-Stat1 (Tyr701) antibody Stat1Y701-3E6 or Company C antibody at 0.2  $\mu$ g/mL (manufacturer's recommended concentration).