

## 12-4133: Phospho-Stat4 (Tyr693) (Clone: F6) rabbit mAb

<b>Clonality :</b>	Monoclonal
<b>Clone Name :</b>	Stat4Y693-F6
<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 4
<b>Isotype :</b>	Rabbit IgG1k
<b>Immunogen Information :</b>	A synthetic phospho-peptide corresponding to residues surrounding Tyr693 of human phospho Stat4

### Description

In response to IL-12 binding, the IL-12 receptor activates the Jak kinases, which phosphorylate tyrosine residues of IL-12RB2. These phosphorylated receptors recruit Stat4 through its SH2 domain, whereupon Stat4 is phosphorylated at Tyr693 in its C-terminal transactivation domain. Phosphorylation promotes Stat4 homodimerization and translocation to the nucleus, where it promotes gene transcription. The N-terminal domain of Stat4 appears to be required for maximal stabilization and for the binding of Stat4 dimers to lower-affinity DNA binding sites. Stat4-deficient mice have demonstrated that this gene is required to both promote Th1 development and inhibit Th2 differentiation due to disabling IL-12 receptor-mediated responses.

### Product Info

<b>Amount :</b>	20 $\mu$ l / 200 $\mu$ l
<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  $\mu$ g/mL - 0.001  $\mu$ g/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)

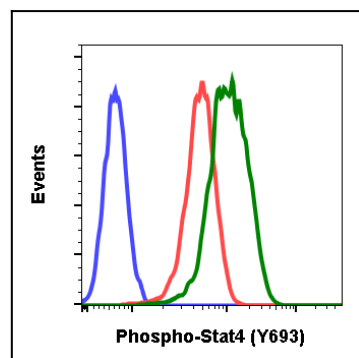


Fig-1: Flow cytometric analysis of NIH3T3 cells secondary antibody only negative control (blue) or treated with imatinib (red) or with pervanadate (green) using Phospho-Stat4 (Tyr693) antibody Stat4Y693-F6 at 0.1  $\mu$ g/mL.

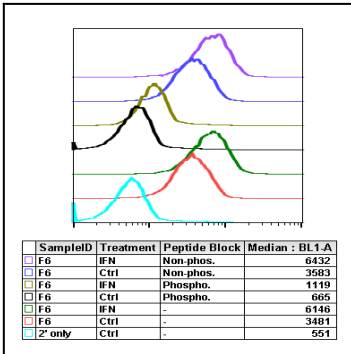


Fig 2 : Peptide blocking flow cytometric analysis of K562 cells secondary antibody only negative control (light blue) or untreated (grey) or IFN $\alpha$  + IL-4 + pervanadate-treated (orange) using 0.1  $\mu$ g/mL isotype control or untreated (red) or treated (green) or untreated and blocked with phospho-peptide (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-Stat4 (Tyr693) antibody Stat4Y693-F6 at 0.1  $\mu$ g/mL.

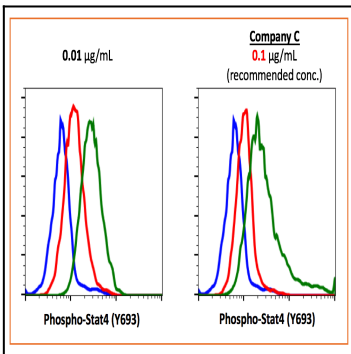


Fig-3: Flow cytometric analysis of K562 cells secondary antibody only negative control (blue) or treated with imatinib (red) or with pervanadate (green) using 0.01  $\mu$ g/mL of Phospho-Stat4 (Tyr693) antibody Stat4Y693-F6 or Company C at 0.1  $\mu$ g/mL (manufacturer's recommended concentration).

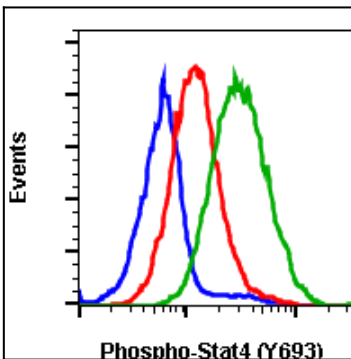


Fig-4: Flow cytometric analysis of K562 cells unstained and treated with imatinib as negative control (blue) or treated with imatinib and stained (red) or treated with IFN $\alpha$  + IL-4 + pervanadate and stained (green) using Phospho-Stat4 (Tyr693) antibody Stat4Y693-F6 at 0.01  $\mu$ g/mL.