

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

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| Clonality : | Monoclonal |
| Clone Name : | Stat4Y693-F6 |
| Application : | FACS |
| Reactivity : | Human, Mouse |
| Conjugate : | Unconjugated |
| Format : | Purified |
| Alternative Name : | Signal transducer and activator of transcription 4 |
| Isotype : | Rabbit IgG1k |
| Immunogen Information : | 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

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| Amount : | 20 µl / 200 µl |
| Content : | 1X PBS, 0.02% NaN ₃ , 50% Glycerol, 0.1% BSA |
| Storage condition : | 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)

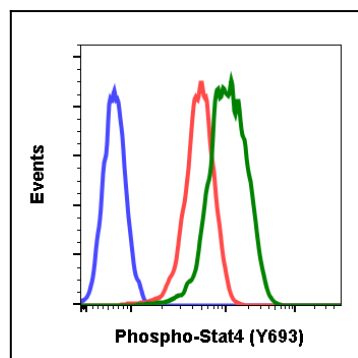


Fig-1: Flow cytometric analysis of NIH3T3 cells secondary antibody only negative control (blue) or treated with imatinib (red) or with pervanadate (green) using Phospho-Stat4 (Tyr693) antibody Stat4Y693-F6 at 0.1 µg/mL.

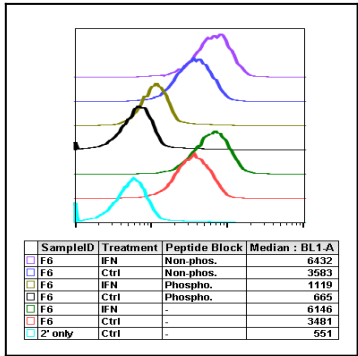


Fig 2 : Peptide blocking flow cytometric analysis of K562 cells secondary antibody only negative control (light blue) or untreated (grey) or IFNa + IL-4 + pervanadate-treated (orange) using 0.1 µg/mL isotype control or untreated (red) or treated (green) or untreated and blocked with phospho-peptide (black) 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 µg/mL.

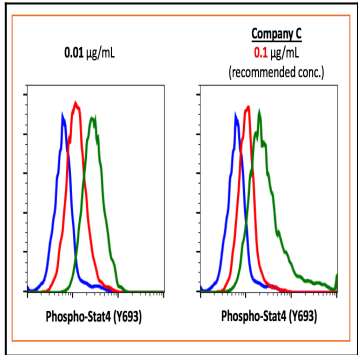


Fig-3: Flow cytometric analysis of K562 cells secondary antibody only negative control (blue) or treated with imatinib (red) or with pervanadate (green) using 0.01 µg/mL of Phospho-Stat4 (Tyr693) antibody Stat4Y693-F6 or Company C at 0.1 µg/mL (manufacturer's recommended concentration).

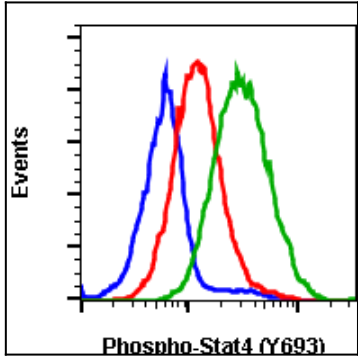


Fig-4: Flow cytometric analysis of K562 cells unstained and treated with imatinib as negative control (blue) or treated with imatinib and stained (red) or treated with IFNa + IL-4 + pervanadate and stained (green) using Phospho-Stat4 (Tyr693) antibody Stat4Y693-F6 at 0.01 µg/mL.