

# Phospho-Stat1 (Tyr701) (3E6)rabbit mAb SureLight®488 conjugate

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## #2225

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**For Research Use Only. Not For Use In Diagnostic Procedures.**

Applications	Detection	Clonality	Isotype
Flow Cytometry	N/A	Monoclonal	Rabbit IgGk

**Format:** SureLight 488

**Cross Reactivity:** Predicted to work with mouse, rat, and other homologues.

**Formulation:** 1X PBS, 0.09% NaN<sub>3</sub>, 0.2% BSA

**Preparation:** Protein A+G

**Reactivity:** Human, Mouse

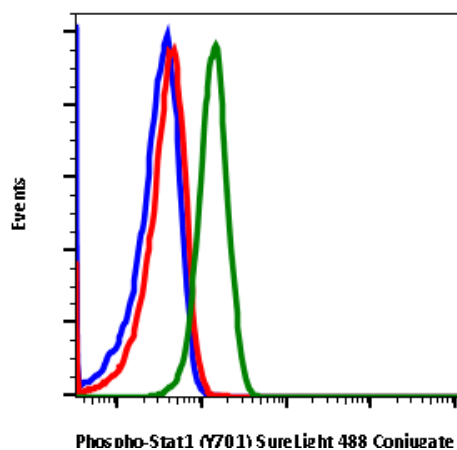
### Recommended

**Usage:** For flow cytometric staining, the suggested use of this reagent is 5 µL per million cells or 5 µL per 100 µL of staining volume. It is recommended that the reagent be titrated for optimal performance for each application.

**Immunogen:** A synthetic phospho-peptide corresponding to residues surrounding Tyr701 of human phospho Stat1

**Description:** Stat1 mediates the cellular response to IFN $\alpha$ , IFN $\beta$ , and IFN $\gamma$  for the regulation of cell growth and the defense against viral and immune challenges. The Jak-Stat pathway plays a central role in the IFN $\gamma$  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.

**References:** Ramana CV, Gil MP, Schreiber RD, and Stark GR. (2002) Trends in Immunology. 23: 96-101.  
Avalle L, Pensa S, Regis G, Novelli F, and Poli V. (2012) JAK-STAT. 1: 65-72.



Flow cytometric analysis of U937 cells unstained untreated cells as negative control (blue) or stained untreated (red) or treated with IFN $\gamma$  IL-4 and pervanadate (green) using phospho-Stat1 (Tyr701) antibody Stat1Y701-3E6 SureLight $\text{\textcircled{R}}$  488 conjugate. Cat. #2225.