

# Phospho-STAT1 (Tyr701) Monoclonal Antibody (KIKSI0803), PE-eFluor™ 610, eBioscience™

Product Details	
Size	100 Tests
Species Reactivity	Human
Host/Isotype	Mouse / IgG1, kappa
Recommended Isotype Control	Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), PE-eFluor™ 610, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	KIKSI0803
Conjugate	PE-eFluor™ 610
Excitation/Emission Max	565/606 nm
Form	Liquid
Concentration	5 µL/Test
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with 0.2% BSA
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2815320

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	5 µL (0.06 µg)/test	1 Publication

## Product Specific Information

**Description:** This KIKSI0803 monoclonal antibody recognizes signal transducer and activator of transcription 1 (STAT1) when phosphorylated on tyrosine 701. STAT proteins are activated by ligand binding to receptors, such as cytokine receptors, that associate with Janus kinase (JAK) family members. Following their phosphorylation by JAKs, STAT proteins translocate to the nucleus where they bind to DNA and regulate transcription of specific genes in a cell type- and cytokine-specific manner. Phosphorylation of STAT1 on tyrosine 701 by JAK1 and JAK2 is essential for STAT1 dimer formation, nuclear translocation, and DNA binding activity. In response to IFN gamma stimulation, STAT1 homodimerizes or forms heterodimers with STAT3 that can bind to GAS (IFN gamma-activated sequence) promoter elements. In response to either IFN alpha or IFN beta stimulation, STAT1 forms a heterodimer with STAT2 that can bind ISRE (IFN-stimulated response element) promoter elements.

Specificity of this KIKSI0803 clone was determined by ELISA, flow cytometry, and western blotting.

**Applications Reported:** This KIKSI0803 antibody has been reported for use in intracellular staining followed by flow cytometric analysis.

**Applications Tested:** This KIKSI0803 antibody has been pre-diluted and tested by intracellular staining followed by flow cytometric analysis of stimulated normal human peripheral blood cells using Protocol C: Two-step protocol for Fixation /Methanol. Protocol A: Two-step protocol for intracellular (cytoplasmic) proteins and Protocol B: One-step protocol for intracellular (nuclear) proteins cannot be used. Please refer to "Staining Intracellular Antigens for Flow Cytometry, Protocol C: Two step protocol for Fixation/Methanol" located at [www.thermofisher.com/flowprotocols](http://www.thermofisher.com/flowprotocols). This may be used at 5 µL (0.06 µg) per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number

should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells/test.

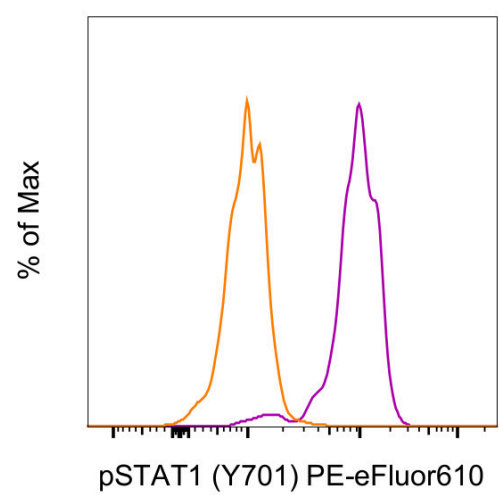
PE-eFluor 610 can be excited with laser lines from 488-561 nm and emits at 607 nm. We recommend using a 610/20 band pass filter (equivalent to PE-Texas Red). Please make sure that your instrument is capable of detecting this fluorochrome.

Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222-49) (100 µL of cell sample + 100 µL of IC Fixation Buffer) or 1-step Fix/Lyse Solution (Product # 00-5333-57) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency/compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

Excitation: 488-561 nm; Emission: 607 nm; Laser: Blue Laser, Green Laser, Yellow-Green Laser

**Product Images For Phospho-STAT1 (Tyr701) Monoclonal Antibody (KIKSI0803), PE-eFluor™ 610, eBioscience™**



**Phospho-STAT1 (Tyr701) Antibody (61-9008-42) in Flow**  
Normal human peripheral blood cells were unstimulated (orange histogram) or stimulated for 15 minutes with Human IFN gamma Recombinant Protein (Product # BMS303) (purple histogram). Cells were then stained intracellularly, using the Intracellular Fixation & Permeabilization Buffer Set (Product # 88-8824-00) and protocol, with Phospho-STAT1 (Tyr701) Monoclonal Antibody, PE-eFluor610. CD14-positive CD4-low cells in the monocyte gate were used for analysis.

**1 Reference**

**Flow Cytometry (1)**

Cell stem cell	Year 2021
<b>Hematopoietic stem cell heterogeneity is linked to the initiation and therapeutic response of myeloproliferative neoplasms.</b>	
"Published figure using Phospho-STAT1 (Tyr701) monoclonal antibody (Product # 61-9008-42) in Flow Cytometry"	
Authors: Tong J,Sun T,Ma S,Zhao Y,Ju M,Gao Y,Zhu P,Tan P,Fu R,Zhang A,Wang D,Wang D,Xiao Z,Zhou J,Yang R,Loughran SJ,Li J,Green AR,Bresnick EH,Wang D,Cheng T,Zhang L,Shi L	

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