

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human STAT1. Detects recombinant human STAT1 transfectants but not irrelevant transfectants.
Source	Monoclonal Rat IgG _{2B} Clone # 246523
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human STAT1 Met1-Gln194 Accession # P42224
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

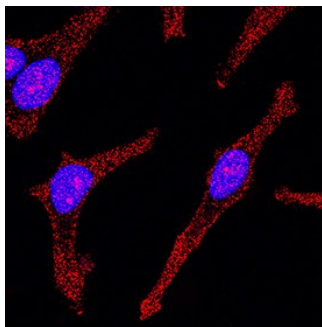
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Immunocytochemistry	8-25 µg/mL	See Below
Intracellular Staining by Flow Cytometry	0.25 µg/10 ⁶ cells	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

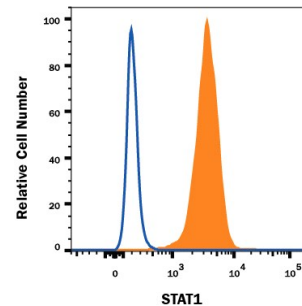
DATA

Immunocytochemistry



STAT1 in HeLa Human Cell Line. STAT1 was detected in immersion fixed HeLa human cervical epithelial carcinoma cell line using Rat Anti-Human STAT1 Monoclonal Antibody (Catalog # MAB1490) at 3 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Rat IgG Secondary Antibody (red; Catalog # NL014) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm and nuclei. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

Intracellular Staining by Flow Cytometry



Detection of STAT1 in HeLa Human Cell Line by Flow Cytometry. HeLa human cervical epithelial carcinoma cell line was stained with Rat Anti-Human STAT1 Monoclonal Antibody (Catalog # MAB1490, filled histogram) or isotype control antibody (Catalog # MAB0061, open histogram) followed by APC-conjugated Goat anti-Rat IgG Secondary Antibody (Catalog # F0113). To facilitate intracellular staining, cells were fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with Flow Cytometry Permeabilization/Wash Buffer I (Catalog # FC005). View our protocol for [Staining Intracellular Molecules](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

STAT1 is a member of the STAT family of cytoplasmic transcription factors that mediate cytokine, growth factor and hormone receptor signal transduction. STAT1 is associated with type I and II interferon signaling. Phosphorylation of STAT1a at Y701 leads to dimerization and translocation to the nucleus to activate gene transcription. Human STAT1 shows 93% and 94% aa identity with mouse and rat STAT1, respectively, over the region used as an immunogen. This region is identical between isoforms STAT1a (91 kDa) and STAT1b (84 kDa).