

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects human and mouse STAT3 in Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human STAT3 Met1-Asn175 Accession # P40763
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 either lyophilized or 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
Western Blot	0.5 µg/mL	See Below
Immunocytochemistry	5-15 µg/mL	See Below
Intracellular Staining by Flow Cytometry	2.5 µg/10 ⁶ cells	Jurkat human acute T cell leukemia cell line fixed with paraformaldehyde and permeabilized with saponin
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA

<p>Western Blot</p>	<p>Detection of Human STAT3 by Western Blot. Western blot shows lysates of NIH-3T3 mouse embryonic fibroblast cell line, Raji human Burkitt's lymphoma cell line, and Daudi human Burkitt's lymphoma cell line. PVDF membrane was probed with 0.5 µg/mL of Sheep Anti-Human STAT3 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF17991) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for STAT3 at approximately 92 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p>Immunocytochemistry</p> <p>STAT3 in Human PBMCs. STAT3 was detected in immersion fixed human peripheral blood mononuclear cells (PBMCs) using 15 µg/mL Sheep Anti-Human STAT3 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF17991) for 3 hours at room temperature. Cells were stained with the NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (red; Catalog # NL010) and counterstained (green). View our protocol for Fluorescent ICC Staining of Non-adherent Cells.</p>
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PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 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

Signal Transducer and Activator of Transcription (STAT) proteins are transcription factors activated in response to cytokine, growth factor, or hormone receptor signaling. Janus kinases (JAKs) phosphorylate STAT proteins and induce dimerization. Homo- or heterodimers translocate to the nucleus where they bind to DNA and activate transcription.