

### DESCRIPTION

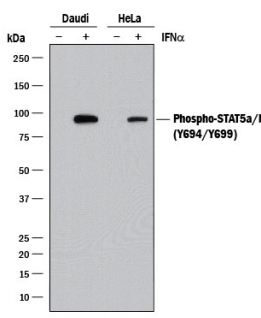
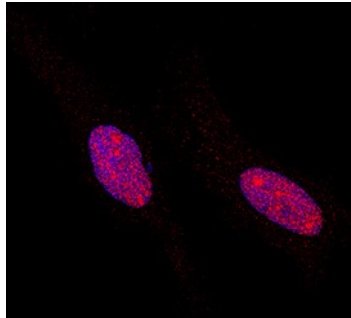
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human STAT5a/b when phosphorylated at Y694/Y699 in Western blots.
<b>Source</b>	Monoclonal Rat IgG <sub>2A</sub> Clone # 941212
<b>Purification</b>	Protein A or G purified from cell culture supernatant
<b>Immunogen</b>	Phosphopeptide containing human STAT5b Y699 site (amino acid sequence of this peptide is identical to a corresponding region of human STAT5a containing Y694). Accession # P51692
<b>Formulation</b>	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
<b>Western Blot</b>	2 µg/mL	See Below
<b>Immunocytochemistry</b>	0.3-25 µg/mL	See Below

### DATA

<p><b>Western Blot</b></p>  <p><b>Detection of Human Phospho-STAT5a/b (Y694/Y699) by Western Blot.</b> Western blot shows lysates of Daudi human Burkitt's lymphoma cell line and HeLa human cervical epithelial carcinoma cell line untreated (-) or treated (+) with 500 U/mL Recombinant Human IFN-αA (Catalog # 11100-1) for 20 minutes. PVDF membrane was probed with 2 µg/mL of Rat Anti-Human Phospho-STAT5a/b (Y694/Y699) Monoclonal Antibody (Catalog # MAB4190) followed by HRP-conjugated Anti-Rat IgG Secondary Antibody (Catalog # HAF005). A specific band was detected for Phospho-STAT5a/b (Y694/Y699) at approximately 95 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p><b>Immunocytochemistry</b></p>  <p><b>Phospho-STAT5a/b (Y694/Y699) in HeLa Human Cell Line.</b> STAT5a/b phosphorylated at Y694/Y699 was detected in immersion fixed HeLa human cervical epithelial carcinoma cell line using Rat Anti-Human Phospho-STAT5a/b (Y694/Y699) Monoclonal Antibody (Catalog # MAB4190) at 0.3 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Rat IgG Secondary Antibody (red; Catalog # NL013) and counterstained with DAPI (blue). Specific staining was localized to nuclei. View our protocol for <a href="#">Fluorescent ICC Staining of Cells on Coverslips</a>.</p>
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### PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

### BACKGROUND

Signal Transduction and Activator of Transcription 5B (STAT5b) is a member of the Jak/STAT signal transduction pathway and is activated by a variety of cytokines (IL-22, IL-6, IFNα). Upon cytokine activation, STAT5b is phosphorylated and translocates to the nucleus where it binds to the DNA consensus site TTCN<sub>3</sub>GAA and activates transcription of specific genes. STAT5b shares 93% amino acid identity with STAT5a. STAT5b is involved in a wide array of biological processes ranging from regulating apoptosis to adult mammary gland proliferation, differentiation and survival.