

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse, and rat STAT5b in Western blots.
Source	Recombinant Monoclonal Rabbit IgG Clone # 1032E
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Human STAT5b synthetic peptide aa 777-787 Accession # P51692
Formulation	Supplied as a solution in PBS containing BSA, Glycerol and Sodium Azide. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

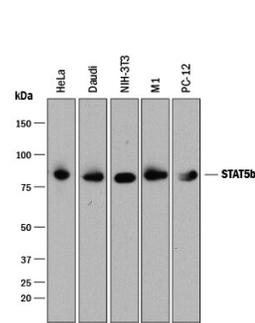
APPLICATIONS

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	1:1000 dilution	See Below
Immunocytochemistry	1:100 dilution	See Below
Simple Western	1:100 dilution	See Below
Knockout Validated	STAT5b is specifically detected in HeLa human cervical epithelial carcinoma parental cell line but is not detectable in STAT5b knockout HeLa cell line.	

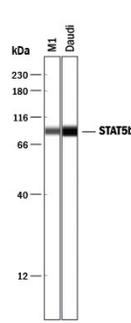
DATA

Western Blot



Detection of Human, Mouse, and Rat STAT5b by Western Blot. Western blot shows lysates of HeLa human cervical epithelial carcinoma cell line, Daudi human Burkitt's lymphoma cell line, NIH-3T3 mouse embryonic fibroblast cell line, M1 mouse myeloid leukemia cell line, and PC-12 rat adrenal pheochromocytoma cell line. PVDF membrane was probed with 1:1000 dilution of Rabbit Anti-Human/Mouse/Rat STAT5b Monoclonal Antibody (Catalog # MAB15841) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). A specific band was detected for STAT5b at approximately 90 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

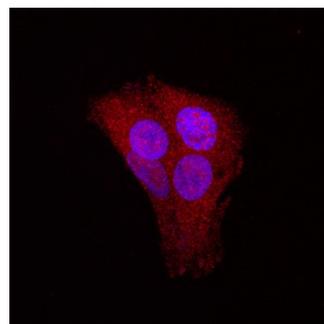
Simple Western



Detection of Human and Mouse STAT5b by Simple Western™. Simple Western lane view shows lysates of M1 mouse myeloid leukemia cell line and Daudi human Burkitt's lymphoma cell line, loaded at 0.2 mg/mL. A specific band was detected for STAT5b at approximately 90 kDa (as indicated) using 1:100 dilution of Rabbit Anti-Human/Mouse/Rat STAT5b Monoclonal Antibody (Catalog # MAB15841). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

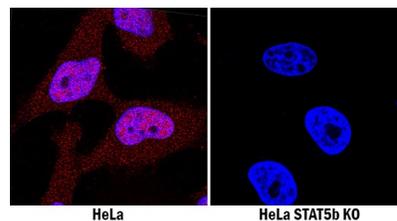


Immunocytochemistry



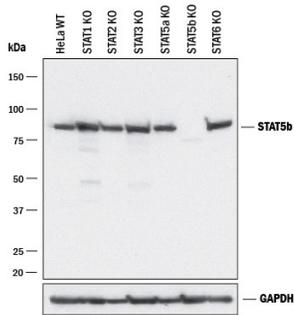
STAT5b in HepG2 Human Cell Line. STAT5b was detected in immersion fixed HepG2 human hepatocellular carcinoma cell line using Rabbit Anti-Human/Mouse/Rat STAT5b Monoclonal Antibody (Catalog # MAB15841) at a 1:100 dilution for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Rabbit IgG Secondary Antibody (red; Catalog # NL004) and counterstained with DAPI (blue). Specific staining was localized to nuclei and cytoplasm. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

Knockout Validated



STAT5b Specificity is Shown by Immunocytochemistry in Knockout Cell Line. STAT5b was detected in immersion fixed HeLa human cervical epithelial carcinoma cell line treated with IFN-alpha 1 but is not detected in STAT5b knockout (KO) HeLa cell line using Rabbit Anti-Human/Mouse/Rat STAT5b Monoclonal Antibody (Catalog # MAB15841) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Rabbit IgG Secondary Antibody (red; Catalog # NL004) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm and nuclei. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

Knockout Validated



Western Blot Shows Human STAT5b Specificity by Using Knockout Cell Lines.

Western blot shows lysates of HeLa human cervical epithelial carcinoma parental cell line, STAT1 knockout (KO) HeLa cell line, STAT2 KO HeLa cell line, STAT3 KO HeLa cell line, STAT5a KO HeLa cell line, STAT5b KO HeLa cell line, and STAT6 KO HeLa cell line. PVDF membrane was probed with 1:1000 dilution of Rabbit Anti-Human/Mouse/Rat STAT5b Monoclonal Antibody (Catalog # MAB15841) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). A specific band was detected for STAT5b at approximately 85 kDa (as indicated) in the parental HeLa cell line, but is not detectable in the STAT5b knockout HeLa cell line. GAPDH (Catalog # AF5718) is shown as a loading control. This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. 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.

- 12 months from date of receipt, -20 to -70 °C, as supplied.
- 1 month, 2 to 8 °C under sterile conditions after opening.
- 6 months, -20 to -70 °C under sterile conditions after opening.

BACKGROUND

Signal Transduction and Activator of Transcription 5 (STAT5) is a member of the Jak/STAT signal transduction pathway and is activated by a variety of cytokines (IL-22, IL-6, IFN- α). STAT5 has two isoforms (A and B) that share 93% amino acid identity and bind the DNA consensus site TTCN₃GAA. STAT5 mediates cytokine signaling by acting as a signal transducer in the cytoplasm and, upon phosphorylation, translocates to the nucleus and activates transcription of specific genes. STAT5 is involved in a wide array of biological processes ranging from regulating apoptosis to adult mammary gland proliferation, differentiation, and survival.

PRODUCT SPECIFIC NOTICES

* Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to SDS for additional information and handling instructions.