Human/Mouse/Rat STAT3 Antibody

Monoclonal Mouse IgG_{2B} Clone # 232209

Catalog Number: MAB1799

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human STAT3.
Source	Monoclonal Mouse IgG_{2B} Clone # 232209
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant human STAT3 Met1-Asn175 Accession # P40763
Formulation	Supplied as a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

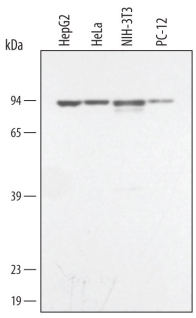
APPLICATIONS

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
Western Blot	0.1 µg/mL	See Below
Immunocytochemistry	8-25 µg/mL	Immersion fixed human peripheral blood mononuclear cells
Immunoprecipitation	1-3 µg/500 µg cell lysate	Daudi human Burkitt's lymphoma cell line, see our available Western blot detection antibodies
Intracellular Staining by Flow Cytometry	2.5 µg/10^6 cells	See Below

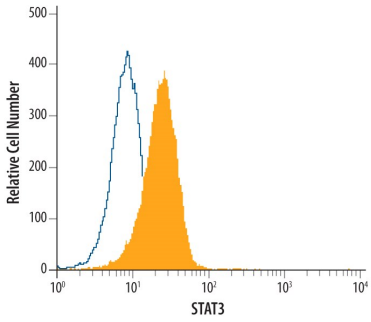
DATA

Western Blot



Detection of Human STAT3 by Western Blot. Western blot shows lysates of HepG2 human hepatocellular carcinoma cell line, HeLa human cervical epithelial carcinoma cell line, NIH-3T3 mouse embryonic fibroblast cell line, and PC-12 rat adrenal pheochromocytoma cell line. PVDF membrane was probed with 0.1 µg/mL of Human STAT3 Monoclonal Antibody (Catalog # MAB1799) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for STAT3 at approximately 90 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Intracellular Staining by Flow Cytometry



Detection of STAT3 in Jurkat Human Cell Line by Flow Cytometry. Jurkat human acute T cell leukemia cell line was stained with Human STAT3 Monoclonal Antibody (Catalog # MAB1799, filled histogram) or isotype control antibody (Catalog # MAB0041, open histogram), followed by Allophycocyanin-conjugated Anti-Mouse IgG $F(ab')_2$ Secondary Antibody (Catalog # F0101B). To facilitate intracellular staining, cells were fixed with paraformaldehyde and permeabilized with methanol.

PREPARATION AND STORAGE

Shipping	The product is shipped with dry ice or equivalent. 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 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.