Human Jak3 Antibody

Monoclonal Mouse IgG_{2B} Clone # 452524

Catalog Number: MAB46991

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Jak3 in direct ELISAs.
Source	Monoclonal Mouse IgG_{2B} Clone # 452524
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant human Jak3 Gly46-Thr209 Accession # P52333
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.

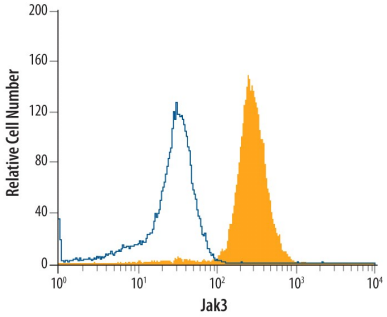
APPLICATIONS

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
Immunocytochemistry	8-25 µg/mL	See Below
Intracellular Staining by Flow Cytometry	2.5 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.	

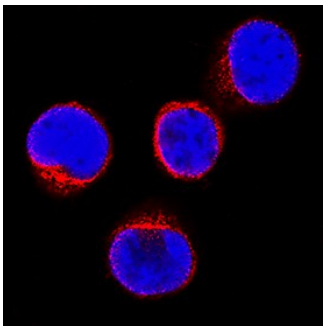
DATA

Intracellular Staining by Flow Cytometry



Detection of Jak3 in Jurkat Human Cell Line by Flow Cytometry. Jurkat human acute T cell leukemia cell line was stained with Mouse Anti-Human Jak3 Monoclonal Antibody (Catalog # MAB46991, 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 saponin.

Immunocytochemistry



Jak3 in Jurkat Human Cell Line. Jak3 was detected in immersion fixed Jurkat human acute T cell leukemia cell line using Mouse Anti-Human Jak3 Monoclonal Antibody (Catalog # MAB46991) at 8 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for Fluorescent ICC Staining of Non-adherent Cells.

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.** ● 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

Janus Kinase 3 (Jak3) belongs to the Jak family of protein tyrosine kinases that couple to cytokine receptors and are activated by ligand binding to these receptors. Also known as Leukocyte Janus Kinase (LJak), Jak3 is activated after binding to the gamma chain of Interleukin receptors, specifically the IL-2 and IL-4 receptors. Activation of Jak3 is associated with the rapid tyrosine phosphorylation of STAT proteins. Defects in Jak3 cause an autosomal severe combined immunodeficiency disease (SCID).

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