

Human PU.1/Spi-1 Antibody

Monoclonal Mouse IgG_{2B} Clone # 732322 Catalog Number: MAB5870

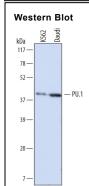
DESCRIPTION			
Species Reactivity	Human		
Specificity	Detects human PU.1/Spi-1 in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant human (rh) Spi-B, recombinant mouse (rm) PU.1/Spi-1, or rmSpi-B is observed. In Western blots, approximately 25% cross-reactivity with rhSpi-B and rmPU.1/Spi-1 is observed.		
Source	Monoclonal Mouse IgG _{2B} Clone # 732322		
Purification	Protein A or G purified from hybridoma culture supernatant		
Immunogen	E. coli-derived recombinant human PU.1/Spi-1 Met1-Lys169 Accession # NP_001074016		
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

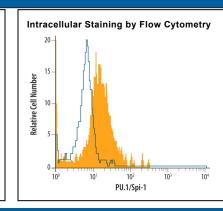
Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	2 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.	





Detection of Human PU.1/Spi-1 by Western Blot. Western blot shows lysates of K562 human chronic myelogenous leukemia cell line and Daudi human Burkitt's lymphoma cell line. PVDF membrane was probed with 2 µg/mL of Mouse Anti-Human PU.1/Spi-1 Monoclonal Antibody (Catalog # MAB5870) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for PU.1/Spi-1 at approximately 40 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.



Detection of PU.1/Spi-1 in THP-1 Human Cell Line by Flow Cytometry. THP-1 human acute monocytic leukemia cell line was stained with Mouse Anti-Human PU.1/Spi-1 Monoclonal Antibody (Catalog # MABS870, filled histogram) or isotype control antibody (Catalog # MAB004, open histogram), followed by Phycoerythrin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0102B). To facilitate intracellular staining, cells were fixed with paraformaldehyde and permeabilized with saponin.

PREPARATION AND STORAGE

Reconstitution Sterile PBS to a final concentration of 0.5 mg/mL

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

- 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

PU.1 (Purine-rich nucleic acid binding protein 1; also 31 kDa transforming protein and SPI-1) is a member of the PU subfamily, ETS family of transcription factors. Although its predicted MW is 31 kDa, it appears to run anomalously high in SDS-PAGE at 40-45 kDa. PU.1 is a monomeric hematopoietic protein that regulates the differentiation of early myeloid and lymphoid progenitors. High PU.1 levels favor granulocyte and macrophage production, while low levels generate magakaryocytes, erythrocytes, T and B cells. Human PU.1 is 270 amino acids (aa) in length. It contains an N-terminal acidic/polyGln transactivation region (aa 34-99), a non-destabilizing PEST sequence (aa 117-165) and a C-terminal Ets DNA-binding domain (aa 170-253). PU.1 is phosphorylated on Ser146, allowing it to bind to Pip. Over aa 1-169, human PU.1 shares 88% aa identity with mouse PU.1.

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