

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human PU.1 in direct ELISAs and Western blots. In direct ELISAs, approximately 5% cross-reactivity with recombinant human SPI-B is observed.
<b>Source</b>	Polyclonal Sheep IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human PU.1 Met1-Lys169 Accession # NP_001074016
<b>Conjugate</b>	Fluorescein Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm (FITC)
<b>Formulation</b>	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.  *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

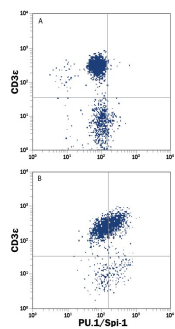
## APPLICATIONS

**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>Intracellular Staining by Flow Cytometry</b>	10 $\mu$ L/ $10^6$ cells	See Below

## DATA

### Intracellular Staining by Flow Cytometry



#### Detection of PU.1/Spi-1 in Human PBMC Lymphocytes and TH2-differentiated PBMCs by Flow Cytometry.

Human peripheral blood mononuclear cell (PBMC) lymphocytes (panel A) and TH2-differentiated peripheral blood mononuclear cells treated with 5 ng/mL recombinant human IL-4 and 10  $\mu$ g/mL anti-IFN gamma (panel B) were stained with Sheep Anti-Human PU.1/Spi-1 Fluorescein-conjugated Antigen Affinity-purified Polyclonal Antibody (Catalog # IC5870F) and Mouse Anti-Human CD3 $\epsilon$  APC-conjugated Monoclonal Antibody (Catalog # FAB100A). Quadrant markers were set based on control antibody staining (Catalog # IC016F). To facilitate intracellular staining, cells were fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with Flow Cytometry Permeabilization/Wash Buffer I (Catalog # FC005). View our protocol for [Staining Intracellular Molecules](#).

## PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Protect from light. Do not freeze.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul>

## 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, plus 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-stabilizing 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.