

## DESCRIPTION

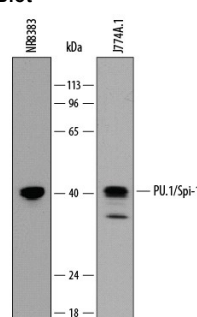
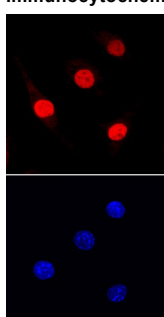
<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse PU.1/Spi-1 in ELISAs. In direct ELISAs, no cross-reactivity with recombinant human PU.1/Spi-1 is observed. Detects mouse and rat PU.1/Spi-1 in Western Blots
<b>Source</b>	Monoclonal Rat IgG <sub>2A</sub> Clone # 823123
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant mouse Spi-1 Met1-Lys169 Accession # P17433
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. 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
<b>Western Blot</b>	0.1 µg/mL	See Below
<b>Immunocytochemistry</b>	8-25 µg/mL	See Below

## DATA

<p><b>Western Blot</b></p>  <p><b>Detection of Mouse and Rat PU.1/Spi-1 by Western Blot.</b> Western blot shows lysates of NR8383 rat alveolar macrophage cell line and J774A.1 mouse reticulum cell sarcoma macrophage cell line. PVDF membrane was probed with 0.1 µg/mL of Rat Anti-Mouse PU.1/Spi-1 Monoclonal Antibody (Catalog # MAB7124) followed by HRP-conjugated Anti-Rat IgG Secondary Antibody (Catalog # HAF005). 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 <i>Immunoblot Buffer Group 1</i>.</p>	<p><b>Immunocytochemistry</b></p>  <p><b>PU.1/Spi-1 in J774A.1 Mouse Cell Line.</b> PU.1/Spi-1 was detected in immersion fixed J774A.1 mouse reticulum cell sarcoma macrophage cell line using Rat Anti-Mouse PU.1/Spi-1 Monoclonal Antibody (Catalog # MAB7124) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Rat IgG Secondary Antibody (red, upper panel; Catalog # NL013) and counterstained with DAPI (blue, lower panel). Specific staining was localized to nuclei. View our protocol for <a href="#">Fluorescent ICC Staining of Non-adherent Cells</a>.</p>
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## PREPARATION AND STORAGE

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.5 mg/mL.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

Spi-1 (SFFV proviral integration 1 protein; also PU.1 and Sfp1) is a 37-41 kDa member of the *ets* family of transcription factors. It is both an RNA and DNA binding protein that is found in hematopoietic cells such as B cells, neutrophils, macrophages and dendritic cells (DC). Spi-1 can act as both a transcriptional activator and repressor. In DC, Spi-1 promotes the expression of CD80, CD86 and CD11b, while in proerythroblasts it blocks GATA-1 induced transcriptional activation. Spi-1 binds to DNA as a monomer and interacts with multiple factors such as Runx-1, IRF8, GATA-1 and c-Jun. Mouse Spi-1 is 272 amino acids (aa) in length. It contains a transactivation region (aa 7-117), a PEST domain (aa 118-164), and a DNA-binding domain (aa 165-266). Phosphorylation on Ser41, 142 and 148 increases activity. There is one alternative start site at Met7. Over aa 1-169, mouse Spi-1 shares 88% and 81% aa identity with rat and human Spi-1, respectively.