

#### DESCRIPTION

<b>Species Reactivity</b>	Human/Mouse/Rat
<b>Specificity</b>	Detects human, mouse, and rat SHIP in Western blots.
<b>Source</b>	Monoclonal Rat IgG <sub>2A</sub> Clone # 257812
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant mouse SHIP Glu874-Thr941 Accession # Q9ES52
<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 either lyophilized or as a 0.2 µm filtered solution in PBS.

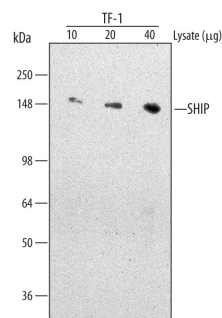
#### APPLICATIONS

**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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	1 µg/mL	See Below
<b>Immunocytochemistry</b>	8-25 µg/mL	See Below
<b>Knockout Validated</b>	SHIP is specifically detected in U-937 parental cell line but is not detectable in SHIP knockout U-937 cell line.	

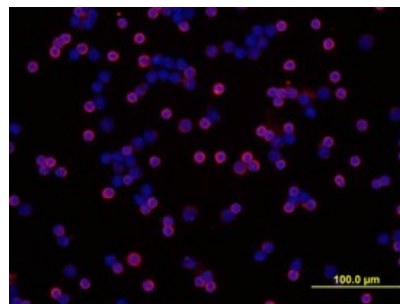
**DATA**

**Western Blot**



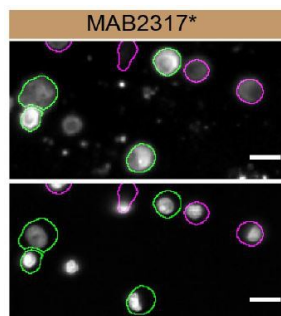
**Detection of Human SHIP by Western Blot.** Western blot shows lysates of TF-1 human erythroleukemic cell line. Gels were loaded with 10 µg (*lane 1*), 20 µg (*lane 2*), and 40 µg (*lane 3*). PVDF membrane was probed with 1 µg/mL Rat Anti-Human/Mouse/Rat SHIP Monoclonal Antibody (Catalog # MAB2317) followed by HRP-conjugated Anti-Rat IgG Secondary Antibody (Catalog # HAF005). A specific band for SHIP was detected at approximately 148 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 3.

**Immunocytochemistry**



**SHIP in Mouse Splenocytes.** SHIP was detected in immersion fixed mouse splenocytes using Rat Anti-Human/Mouse/Rat SHIP Monoclonal Antibody (Catalog # MAB2317) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Rat IgG Secondary Antibody (red; Catalog # NL013) and counterstained with DAPI (blue). View our protocol for [Fluorescent ICC Staining of Non-adherent Cells](#).

**Knockout Validated**



**SHIP Specificity is Shown by Immunocytochemistry in Knockout Cell Line.** U-937 WT and SHIP KO cells were labelled with a green or a far-red fluorescent dye, respectively. Cells were stained with Rat Anti-Human/Mouse/Rat SHIP Monoclonal Antibody (Catalog # MAB2317) followed by incubation with a goat anti-rat Alexa-fluor 555 coupled secondary antibody (upper panel). DAPI-only counterstained cells shown on a lower panel. Acquisition of the blue (nucleus-DAPI), green (identification of WT cells), red (antibody staining) and far-red (identification of KO cells) channels was performed. Representative images of the blue and red (grayscale) channels are shown. WT and KO cells are outlined with green and magenta dashed line, respectively. Primary antibody concentration used: 1 µg/mL. Image, protocol and testing courtesy of YCharOS Inc. (ycharos.com).

**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS. For liquid material, refer to CoA for concentration.
<b>Shipping</b>	Lyophilized product is shipped at ambient temperature. Liquid small pack size (-SP) is shipped with polar packs. Upon receipt, store immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <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**

SH2-containing inositol phosphatase (SHIP), also known as INPP5D, is a negative regulator of signal transduction in hematopoietic cells. Targeted disruption of SHIP in mice leads to a myeloproliferative disorder. Several laboratories have demonstrated the presence of multiple forms of SHIP, including 145 kDa, 135 kDa, and C-terminal truncated forms at 125 kDa and 110 kDa in some cell types.