

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human SHIP2 in direct ELISAs and Western blots. In Western blots, no cross-reactivity with recombinant mouse SHIP2 is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 737935
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human SHIP2 Ala1106-Lys1258 Accession # O15357
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.

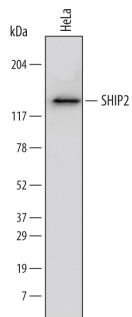
APPLICATIONS

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	1 µg/mL	See Below
Immunocytochemistry	8-25 µg/mL	See Below

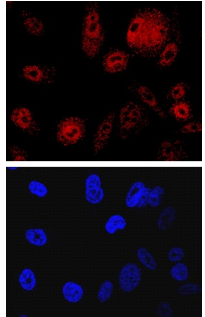
DATA

Western Blot



Detection of Human SHIP2 by Western Blot. Western blot shows lysates of HeLa human cervical epithelial carcinoma cell line. PVDF membrane was probed with 1 µg/mL of Mouse Anti-Human SHIP2 Monoclonal Antibody (Catalog # MAB5389) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for SHIP2 at approximately 140 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunocytochemistry



SHIP2 in PC-3 Human Cell Line. SHIP2 was detected in immersion fixed PC-3 human prostate cancer cell line using Mouse Anti-Human SHIP2 Monoclonal Antibody (Catalog # MAB5389) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red, upper panel; Catalog # NL007) and counterstained with DAPI (blue, lower panel). Specific staining was localized to nuclei and cytoplasm. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

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
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> 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

SHIP2 (SH2 domain-containing inositol 5-phosphatase 2; also inositol polyphosphate phosphatase-like 1) is a 160 kDa member of the phosphatidylinositol/PtdIns 5-phosphatase family of enzymes. It is widely expressed and negatively regulates PI3 kinase pathways by hydrolyzing the 5-phosphate of PtdIns-3,4,5-triphosphate. Human SHIP2 is 1258 amino acids (aa) in length. It contains one SH2 domain (aa 21-117), a Pro-rich region with an SH3 binding site (aa 935-1105), and a SAM (or sterile α-motif) domain that binds ARAP3 (aa 1196-1258). Phosphorylation is known to occur on Tyr986, 1162 and 1358, and on Thr958. There is an alternate start site at Met243 and a second splice variant that shows a 40 aa substitution for aa 1228-1258. Over aa 1106-1258, human SHIP2 shares 95% aa identity with mouse SHIP2.