



Product Information

ANTI-SHIP Developed in Rabbit IgG Fraction of Antiserum

Product Number **S1186**

Product Description

Anti-SHIP (Src homology 2-containing inositol phosphatase) is developed in rabbit using a GST fusion protein corresponding to residues 7-133 of murine SHIP SH2 domain. The antibody is purified using protein A.

Anti-SHIP reacts specifically with a SHIP by immunoblotting (145 kDa and/or 135 kDa) and with C-terminal truncated forms of SHIP (125 kDa and 110 kDa) in some cell types. The antibody reacts with mouse and human SHIP. Anti-SHIP may be used for immunoblotting and immunoprecipitation analysis.

SHIP or "p145" is a hemopoietic specific, src homology 2-containing inositol 5'-phosphatase. SHIP is an inositol polyphosphate 5-phosphatase which selectively removes the 5-phosphate from inositol 1,3,4,5-tetrakisphosphate and phosphatidylinositol 3,4,5-trisphosphate (PI(3,4,5)P₃),^{1,2} suggesting that it may act downstream of or counter to PI 3-kinase. More recently, a second more widely expressed SHIP-like protein has been cloned and called SHIP2. Because of their ability to break down phosphatidylinositol-3,4,5-trisphosphate, the SHIPs have the potential to regulate many, if not all, phosphatidylinositol-3-kinase induced events including, proliferation, differentiation, apoptosis, end cell activation, cell movement and adhesion. Overexpression of SHIP inhibits cellular proliferation and/or induces apoptosis, suggesting that SHIP acts as a negative regulator of hematopoietic cells.^{3,4} SHIP has been implicated in inhibitory signaling induced by FcRIIB, the B cell receptor for the Fc portion of soluble IgG. Co-cross-linking of the FcRIIB with the BCR inhibits B cell proliferation, Ras activation, and the influx of calcium across the cell membrane normally observed after BCR stimulation.⁵⁻⁸ SHIP binds to the cytoplasmic tail of the FcRIIB after its co-ligation with the BCR^{9,10} and has been shown to inhibit sustained influx of calcium into the cell.¹¹

Reagents

Anti-SHIP is supplied as an IgG fraction of antiserum in 0.07M Tris-glycine, pH 7.4, containing 0.105 M NaCl, 0.035% sodium azide and 30% glycerol.

Protein concentration is approximately 1 mg/ml.

Precautions and Disclaimer

This product contains sodium azide. A material safety data sheet (MSDS) has been sent to the attention of the safety officer of your institution. Consult MSDS for information regarding hazards and safe handling practices.

Storage/Stability

Store product at 0 to -20°C. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use.

Product Profile

Recommended working concentration is 2 µg/ml using RIPA lysates from human TF-1 cells (a bone marrow erythroleukemia cell line), anti-rabbit IgG conjugate to Peroxidase and enhanced chemiluminescence.

For IP, 2 µg is recommended to immunoprecipitate SHIP from Ramos cells (human B cell lines).

Note: In order to obtain best results and assay sensitivity in different techniques and preparations, we recommend determining optimal working dilutions by titration test.

References

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Application Reference

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