

Phospho-SHIP1 (Tyr1020) Antibody

100 µl
(10 western blots)

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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications W Endogenous	Species Cross-Reactivity*		Molecular Wt. 145 kDa	Source Rabbit**
	H, M			

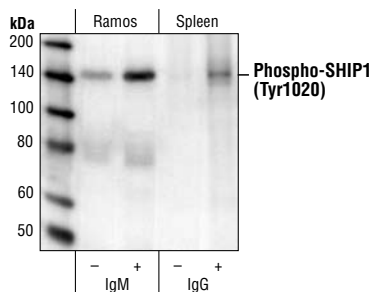
Background: SH2-containing inositol phosphatase 1 (SHIP1) is a hematopoietic phosphatase that hydrolyzes phosphatidylinositol-3,4,5-triphosphate to phosphatidylinositol-3,4-bisphosphate (1). SHIP1 is a cytosolic phosphatase with an SH2 domain in its amino terminus and two NPXY Shc binding motifs in its carboxy terminus (1,2). Upon receptor cross-linking, SHIP1 is first recruited to the membrane junction through binding of its SH2 domain to the phospho-tyrosine in the ITIM motif (2), followed by tyrosine phosphorylation on the NPXY motif (2). The membrane relocalization and phosphorylation on the NPXY motif is essential for the regulatory function of SHIP1 (3-5). Its effect on calcium flux, cell survival, growth, cell cycle arrest and apoptosis is mediated through the PI3K and Akt pathways (3-5). Tyrosine 1021 is located in one of the NPXY motifs in SHIP1, and its phosphorylation is important for SHIP1 function (6).

Specificity/Sensitivity: Phospho-SHIP1 (Tyr1021) Antibody detects endogenous levels of SHIP1 only when phosphorylated at tyrosine 1020 of mouse SHIP1 (or Tyr1021 of human SHIP1).

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues around Tyr1020 of mouse SHIP. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

- Tridandapani, S. et al. (1997) *Mol. Cell Biol.* 8, 4305-4311.
- Liu, L. et al. (1997) *J. Biol. Chem.* 272, 8983-8988.
- Malbec, O. et al. (2001) *J. Biol. Chem.* 276, 30381-30391.
- Carver, D.J. et al. (2000) *Blood* 96, 1449-1456.
- Scharenberg, A.M. et al. (1998) *EMBO J.* 17, 1961-1972.
- Sattler, M. et al. (2001) *J. Biol. Chem.* 276, 2451-2455.



Western blot analysis of extracts from Ramos cells (human), untreated or IgM-treated (12 µg/ml for 2 minutes) and mouse splenocytes, untreated or IgG-treated (30 µg/ml), using Phospho-SHIP1 (Tyr1020) Antibody.

Entrez-Gene ID # 3635
Swiss-Prot Acc. # Q92835

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western Blotting 1:1000

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide

Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine

Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.