

**#2727** Store at  $-20^{\circ}\text{C}$

# SHIP1 (C40G9) Rabbit mAb

100  $\mu\text{l}$   
 (10 western blots)



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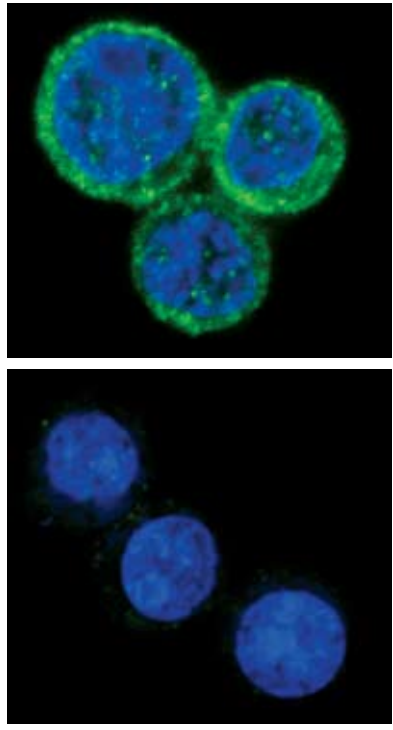
This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

| Applications                  | Species Cross-Reactivity* | Molecular Wt. | Isotype      |
|-------------------------------|---------------------------|---------------|--------------|
| W, IP, IF-IC, F<br>Endogenous | H                         | 145 kDa       | Rabbit IgG** |

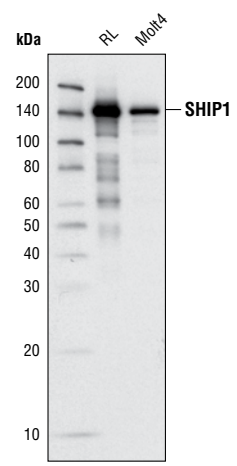
**Background:** SH2-containing inositol phosphatase 1 (SHIP1) is a hematopoietic phosphatase that hydrolyzes phosphatidylinositol-3,4,5-triphosphate to phosphatidylinositol-3,4-bisphosphate (1). SHIP1 is a cytosolic phosphatase with an SH2 domain in its amino terminus and two NPXY Shc binding motifs 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:** SHIP1 (C40G9) Rabbit mAb detects the endogenous levels of total SHIP1 protein.

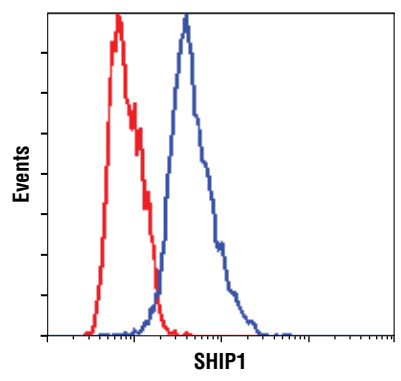
**Source/Purification:** Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Trp942 of human SHIP1.



Confocal immunofluorescent analysis of RL (upper) and Jurkat cells (lower) using SHIP1 (C40G9) Rabbit mAb (green). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).



Western blot analysis of extracts from RL and Molt4 cells using SHIP1 (C40G9) Rabbit mAb.



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

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100  $\mu\text{g/ml}$  BSA, 50% glycerol and less than 0.02% sodium azide. Store at  $-20^{\circ}\text{C}$ . 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 |
| Immunoprecipitation        | 1:50   |
| Immunofluorescence (IF-IC) | 1:100  |
| Flow Cytometry             | 1:200  |

For application specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).

Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.

**Background References:**

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

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**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.**

◀ Flow cytometric analysis of Jurkat cells (red) and RL cells (blue) using SHIP1 (C40G9) Rabbit mAb.

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**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.