

#3941 Store at -20°C

## Phospho-SHIP1 (Tyr1020) Antibody



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TECHNOLOGY®

**Orders:** 877-616-CELL (2355)  
orders@cellsignal.com

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**Web:** info@cellsignal.com  
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3 Trask Lane | Danvers | Massachusetts | 01923 | USA

**For Research Use Only. Not for Use in Diagnostic Procedures.**

| Applications: | Reactivity: | Sensitivity: | MW (kDa): | Source: | UniProt ID: | Entrez-Gene Id: |
|---------------|-------------|--------------|-----------|---------|-------------|-----------------|
| WB            | H M         | Endogenous   | 145       | Rabbit  | #Q92835     | 3635            |

|                                  |  |                           |
|----------------------------------|--|---------------------------|
| <b>Product Usage Information</b> | <b>Application</b><br>Western Blotting   | <b>Dilution</b><br>1:1000 |
| <b>Storage</b>                   | 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.   |                           |
| <b>Specificity / Sensitivity</b> | Phospho-SHIP1 (Tyr1021) Antibody detects endogenous levels of SHIP1 only when phosphorylated at tyrosine 1020 of mouse SHIP1 (or Tyr1021 of human SHIP1).  |                           |
| <b>Source / Purification</b>     | 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.   |                           |
| <b>Background</b>                | 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, SHIP 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). Tyr1021 is located in one of the NPXY motifs in SHIP1, and its phosphorylation is important for SHIP1 function (6). |                           |
| <b>Background References</b>     | <ol style="list-style-type: none"> <li>1. Tridandapani, S. et al. (1997) <i>Mol Cell Biol</i> 17, 4305-11.</li> <li>2. Liu, L. et al. (1997) <i>J Biol Chem</i> 272, 8983-8.</li> <li>3. Malbec, O. et al. (2001) <i>J Biol Chem</i> 276, 30381-91.</li> <li>4. Carver, D.J. et al. (2000) <i>Blood</i> 96, 1449-56.</li> <li>5. Scharenberg, A.M. et al. (1998) <i>EMBO J</i> 17, 1961-72.</li> <li>6. Sattler, M. et al. (2001) <i>J Biol Chem</i> 276, 2451-8.</li> </ol>   |                           |

|                               |   |
|-------------------------------|---|
| <b>Species Reactivity</b>     | Species reactivity is determined by testing in at least one approved application (e.g., western blot).  |
| <b>Western Blot Buffer</b>    | IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.  |
| <b>Applications Key</b>       | <b>WB:</b> Western Blotting   |
| <b>Cross-Reactivity Key</b>   | <b>H:</b> human <b>M:</b> mouse <b>R:</b> rat <b>Hm:</b> hamster <b>Mk:</b> monkey <b>Vir:</b> virus <b>Mi:</b> mink <b>C:</b> chicken <b>Dm:</b> D. melanogaster <b>X:</b> Xenopus <b>Z:</b> zebrafish <b>B:</b> bovine <b>Dg:</b> dog <b>Pg:</b> pig <b>Sc:</b> S. cerevisiae <b>Ce:</b> C. elegans <b>Hr:</b> horse <b>GP:</b> Guinea Pig <b>Rab:</b> rabbit <b>All:</b> all species expected  |
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