Revision 5

Store at -20C

#2725

SHIP1 (C15C9) Rabbit mAb

Cell Signaling TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP, FC-FP	H	Endogenous	145	Rabbit IgG	#Q92835	3635

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:50
Flow Cytometry (Fixed/Permeabilized)	1:200

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

Specificity/Sensitivity

SHIP1 (C15C9) Rabbit mAb detects endogenous levels of total SHIP1 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro1135 of human SHIP1.

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, 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). Tyr1022 is located in one of the NPXY motifs in SHIP1, and its phosphorylation is important for SHIP1 function (6).

Background References

1. Tridandapani, S. et al. (1997) *Mol Cell Biol* 17, 4305-11.
2. Liu, L. et al. (1997) *J Biol Chem* 272, 8983-8.
3. Malbec, O. et al. (2001) *J Biol Chem* 276, 30381-91.
4. Carver, D.J. et al. (2000) *Blood* 96, 1449-56.
5. Scharenberg, A.M. et al. (1998) *EMBO J* 17, 1961-72.
6. Sattler, M. et al. (2001) *J Biol Chem* 276, 2451-8.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation **FC-FP:** Flow Cytometry (Fixed/Permeabilized)

Cross-Reactivity Key

H: Human

Trademarks and Patents

Limited Uses

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