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phospho-SHIP1 (Tyr1020) Rabbit pAb

Catalog # AP96521

Product Information

Application	WB
Reactivity	Mouse
Predicted	Rat, Pig, Human, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	134 KDa
Physical State	Liquid
Immunogen	KLH conjugated Synthesised phosphopeptide derived from rat SHIP1 around the phosphorylation site of Tyr1020
Epitope Specificity	PL(p-Y)GS
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the inositol-1,4,5-trisphosphate 5-phosphatase family. Contains 1 SH2 domain.
SUBUNIT	Interacts with tyrosine phosphorylated forms of SHC1, DOK1, DOK3, PTPN11/SHP-2, SLAMF1/CD150. Interacts with PTPN11 in response to IL-3. Interacts with receptors EPOR, MS4A2/FCER1B and FCER1G, FCGR2A, FCGR2B and FCGR3. Interacts with GRB2 and PLCG1. Interacts with tyrosine kinases SRC and TEC. Interacts with FCGR2A, leading to regulate gene expression during the phagocytic process. Interacts with c-Met/MET (By similarity). Interacts with MILR1 (tyrosine-phosphorylated). Can weakly interact (via NPXY motif 2) with DAB2 (via PID domain); the interaction is impaired by tyrosine phosphorylation of the NPXY motif.
Post-translational modifications	Tyrosine phosphorylated by the members of the SRC family after exposure to a diverse array of extracellular stimuli such as cytokines, growth factors, antibodies, chemokines, integrin ligands and hypertonic and oxidative stress. Phosphorylated upon IgG receptor FCGR2B-binding.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	SHIP1 is a member of the inositol polyphosphate-5-phosphatase (INPP5) family and contains an N-terminal SH2 domain, an inositol phosphatase domain, and two C-terminal protein interaction domains. Expression of this protein is restricted to hematopoietic cells where its movement from the cytosol to the plasma membrane is mediated by tyrosine phosphorylation in response to multiple cytokine and B and T cell receptor activation. At the plasma membrane, the protein hydrolyzes the 5' phosphate from phosphatidylinositol (3,4,5)-trisphosphate and inositol-1,3,4,5-tetrakisphosphate, thereby affecting multiple signaling pathways. Overall the protein functions as a negative regulator of myeliod cell proliferation and survival.

Additional Information

Other Names	SHIP; SHIP-1; SHIP1; SIP-145; hp51CN; p150Ship; s-SHIP; SHIP1_HUMAN; INPP5D; Inositol polyphosphate-5-phosphatase D; Inositol polyphosphate-5-phosphatase of 145 kDa (SIP-145); Phosphatidylinositol 4, 5-bisphosphate 5-phosphatase; SH2 domain-containing inositol 5'-phosphatase 1 (SH2 domain-containing inositol phosphatase 1 | SHIP-1); p150Ship (hp51CN); 3.1.3.86; SHIP1_MOUSE; Phosphatidylinositol-4, 5-bisphosphate 5-phosphatase; 7a33; inositol polyphosphate-5-phosphatase, 145kD; inositol polyphosphate-5-phosphatase, 145kDa; SH2 domain-containing inositol 5'-phosphatase 1; INPP5D | SHIP1 (phospho-Y1020); p-SHIP1; phospho-SHIP1; p-INPP5D; INPP5D | SHIP1 (phospho-Tyr1020)
Dilution	WB=1:500-2000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Name	phospho-SHIP1 (Tyr1020) Rabbit pAb
Function	Phosphatidylinositol (PtdIns) phosphatase that specifically hydrolyzes the 5-phosphate of phosphatidylinositol-3,4,5-trisphosphate (PtdIns(3,4,5)P3) to produce PtdIns(3,4)P2, thereby negatively regulating the PI3K (phosphoinositide 3-kinase) pathways. Acts as a negative regulator of B-cell antigen receptor signaling. Mediates signaling from the FC-gamma-RIIB receptor (FCGR2B), playing a central role in terminating signal transduction from activating immune/hematopoietic cell receptor systems. Acts as a negative regulator of myeloid cell proliferation/survival and chemotaxis, mast cell degranulation, immune cells homeostasis, integrin alpha-IIb/beta-3 signaling in platelets and JNK signaling in B-cells. Regulates proliferation of osteoclast precursors, macrophage programming, phagocytosis and activation and is required for endotoxin tolerance. Involved in the control of cell-cell junctions, CD32a signaling in neutrophils and modulation of EGF-induced phospholipase C activity. Key regulator of neutrophil migration, by governing the formation of the leading edge and polarization required for chemotaxis. Modulates FCGR3/CD16-mediated cytotoxicity in NK cells. Mediates the activin/TGF-beta-induced apoptosis through its Smad-dependent expression. May also hydrolyze PtdIns(1,3,4,5)P4, and could thus affect the levels of the higher inositol polyphosphates like InsP6 (By similarity).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.