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Phospho-SHIP (Y1020) Antibody

Rabbit mAb
Catalog # AP90900

Product Information

Application	WB, IF, ICC, IP
Primary Accession	Q92835
Reactivity	Human
Clonality	Monoclonal
Other Names	Phosphatidylinositol 3, 4, 5-trisphosphate 5-phosphatase 1; Inositol polyphosphate-5-phosphatase of 145 kDa; SIP-145; SH2 domain-containing inositol 5'-phosphatase 1; SHIP-1; p150Ship; hp51CN; INPP5D; SHIP;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	133292

Additional Information

Dilution	WB 1:1000~1:2000 ICC/IF 1:50~1:200 IP 1:20
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human SHIP
Description	SH2-containing inositol phosphatase 1 (SHIP1) is a hematopoietic phosphatase that hydrolyzes phosphatidylinositol-3,4,5-triphosphate to phosphatidylinositol-3,4-bisphosphate. SHIP1 is a cytosolic phosphatase with an SH2 domain in its amino terminus and two NPXY Shc binding motifs in its carboxy terminus. Involved in the control of cell-cell junctions, CD32a signaling in neutrophils and modulation of EGF-induced phospholipase C activity.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Protein Information

Name	INPP5D
Synonyms	SHIP {ECO:0000303|PubMed:10764818}, SHIP
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 (PubMed:10764818, PubMed:8723348, PubMed:8769125). Also, is able to hydrolyze the 5-phosphate of phosphatidylinositol-4,5-bisphosphate (PtdIns(4,5)P3), 1D-myo-inositol 1,4,5-trisphosphate and inositol 1,3,4,5-tetrakisphosphate (PubMed:10764818, PubMed:40969890, PubMed:8769125, PubMed:9108392).

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 (PubMed:16682172). 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.

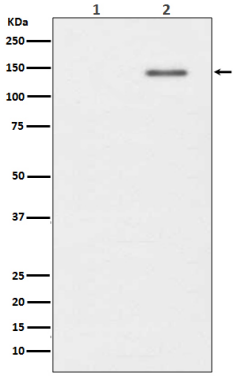
Cellular Location

Cytoplasm. Cell membrane {ECO:0000250|UniProtKB:Q9ES52}; Peripheral membrane protein {ECO:0000250|UniProtKB:Q9ES52}. Membrane raft {ECO:0000250|UniProtKB:Q9ES52}. Cytoplasm, cytoskeleton {ECO:0000250|UniProtKB:Q9ES52}. Membrane; Peripheral membrane protein Note=Translocates to the plasma membrane when activated, translocation is probably due to different mechanisms depending on the stimulus and cell type. Translocates from the cytoplasm to membrane ruffles in a FCGR3/CD16-dependent manner. Colocalizes with FC-gamma-RIIB receptor (FCGR2B) or FCGR3/CD16 at membrane ruffles. Tyrosine phosphorylation may also participate in membrane localization {ECO:0000250|UniProtKB:Q9ES52}

Tissue Location

Specifically expressed in immune and hematopoietic cells. Expressed in bone marrow and blood cells. Levels vary considerably within this compartment. Present in at least 74% of immature CD34+ cells, whereas within the more mature population of CD33+ cells, it is present in only 10% of cells. Present in the majority of T-cells, while it is present in a minority of B-cells (at protein level).

Images



Western blot analysis of Phospho-SHIP (Y1020) expression in (1) Raji cell lysate; (2) Raji cell treated with pervanadate lysate.

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