10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-SHIP1 Antibody

Catalog # AP51284

Product Information

Application	WB, IHC
Primary Accession	Q92835
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	133292

Additional Information

Gene ID	3635
Other Names	SHIP; SHIP1; Phosphatidylinositol 3, 4, 5-trisphosphate 5-phosphatase 1; Inositol polyphosphate-5-phosphatase of 145 kDa; SIP-145; SH2 domain-containing inositol 5'-phosphatase 1; SH2 domain-containing inositol phosphatase 1; SHIP-1; p150Ship; hp51CN
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human SHIP1. The exact sequence is proprietary.
Dilution	WB~~ 1:1000 IHC~~1:100~500
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

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}

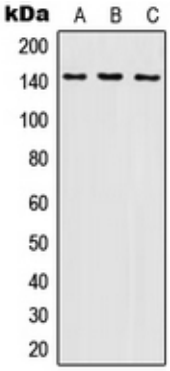
Tissue Location

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).

References

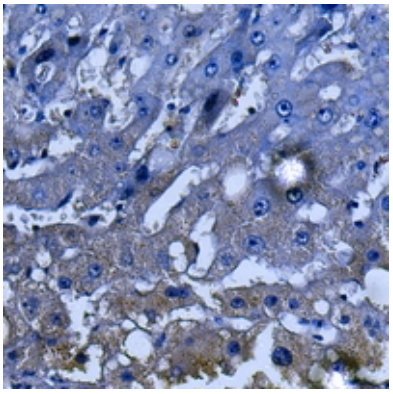
Drayer A.L.,et al.Biochem. Biophys. Res. Commun. 225:243-249(1996).
Ware M.D.,et al.Blood 88:2833-2840(1996).
Kavanaugh W.M.,et al.Curr. Biol. 6:438-445(1996).
Geier S.J.,et al.Blood 89:1876-1885(1997).
Odai H.,et al.Blood 89:2745-2756(1997).

Images



Western blot analysis of SHIP1 expression in THP1 (A), NAMALWA (B), Ramos (C) whole cell lysates. (Predicted band size: 133 kD; Observed band size: 145 kD)

Immunohistochemical analysis of SHIP1 staining in human lung cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat



mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

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