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Anti-INPP5D / SHIP1 / SHIP Antibody (N-Terminus, clone SHIP-01)

Mouse Anti Human Monoclonal Antibody
Catalog # ALS17381

Product Information

Application	WB, IHC-P, FC
Primary Accession	Q92835
Predicted	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2a
Clone Names	SHIP-01
Calculated MW	133292
Concentration (mg/ml)	1 mg/ml

Additional Information

Gene ID	3635
Alias Symbol	INPP5D
Other Names	INPP5D, p150Ship, SHIP, SHIP1, SHIP-1, Hp51CN, SIP-145
Target/Specificity	This antibody reacts with SHIP-1, a phosphoinositide phosphatase largely confined to hematopoietic cells. Multiple forms of SHIP-1 have been reported with molecular weights of 110, 125, 130, 135 and 145 kD.
Reconstitution & Storage	PBS, pH 7.4, 15 mM sodium azide. Store at 2-8°C. Do not freeze.
Precautions	Anti-INPP5D / SHIP1 / SHIP Antibody (N-Terminus, clone SHIP-01) is for research use only and not for use in diagnostic or therapeutic procedures.

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). Able also to hydrolyzes the 5-phosphate of phosphatidylinositol-4,5-bisphosphate (PtdIns(4,5)P3) and inositol 1,3,4,5-tetrakisphosphate (PubMed:10764818, 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).