

SHIP Antibody (C-term) Blocking peptide
Synthetic peptide
Catalog # BP8473b**Specification**

SHIP Antibody (C-term) Blocking peptide - Product Information

Primary Accession [O92835](#)
Other Accession [O00145](#)

SHIP Antibody (C-term) Blocking peptide - Additional Information

Gene ID 3635

Other Names

Phosphatidylinositol 3, 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, INPP5D, SHIP, SHIP1

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP8473b](/product/products/AP8473b) was selected from the C-term region of human hSHIP1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

SHIP Antibody (C-term) Blocking peptide - 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: [8723348](http://www.uniprot.org/citations/8723348), PubMed: [10764818](http://www.uniprot.org/citations/10764818), PubMed: [8769125](http://www.uniprot.org/citations/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: 9108392, PubMed: 10764818, PubMed: 8769125). 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).

SHIP Antibody (C-term) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

SHIP Antibody (C-term) Blocking peptide - Images

SHIP Antibody (C-term) Blocking peptide - Background

SHIP1, SH2-containing inositol phosphatase 1, hydrolyzes phosphatidylinositol-3,4,5-triphosphate to phosphatidylinositol-3,4-bisphosphate. SHIP1 is a cytosolic phosphatase that affects calcium flux, cell survival, growth, cell cycle arrest, and apoptosis mediated through the PI3K and Akt pathways. SHIP1 is a negative regulator B lymphoid cell, myeloid cell, and mast cell activation.

SHIP Antibody (C-term) Blocking peptide - References

Maxwell, M., et al. 2004. J. Biol. Chem. 279, 32196. Giuriato, S., et al. 2003. Biochem. J. 376, 199. Sly, L.M., et al. 2003. Exp. Hematol. 31, 1170. Sattler, M., et al. 2001. J. Biol. Chem. 276, 2451.