

# Rabbit Anti-SHIP1 antibody

## SL3567R

Product Name:	SHIP1
Chinese Name:	SH2结构含磷酸肌醇SHIP1抗体
Alias:	Inositol polyphosphate 5 phosphatase of 145kDa; 4; 5-trisphosphate 5-phosphatase 1; hp51CN; hSHIP; Inositol polyphosphate 5 phosphatase 145kDa; Inositol polyphosphate 5 phosphatase; Inositol polyphosphate 5 phosphatase D; Inositol polyphosphate-5-phosphatase of 145 kDa; INPP 5D; INPP5D; INPP5D protein; MGC104855; MGC142140; MGC142142; p150 ship; p150Ship; Phosphatidylinositol 3,4,5 trisphosphate 5 phosphatase 1; Phosphatidylinositol-3; SH2 containing inositol 5 phosphatase; SH2 containing inositol phosphatase isoform b; SH2 domain containing inositol 5' phosphatase 1; SH2 domain containing inositol-5"-phosphatase 1; SH2 domain-containing inositol-5"-phosphatase 1; SHIP-1; SHIP1; SHIP1_HUMAN; Signaling inositol polyphosphate 5 phosphatase SIP 145; Signaling inositol polyphosphate 5 phosphatase SIP 145; SIP145.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human, Mouse, Rat, Pig, Cow, Horse,
Applications:	WB=1:500-2000ELISA=1:500-1000 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	133kDa
Cellular localization:	cytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human SHIP1:701-800/1189
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year

when kept at -20°C. 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.

#### PubMed:

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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.

#### **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 FCgamma-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.

## Product Detail:

## 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 (By similarity).

## **Subcellular Location:**

Cytoplasm. 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. Partly translocated via its SH2 domain which

mediates interaction with tyrosine phosphorylated receptors such as the FC-gamma-RIIB receptor (FCGR2B) or CD16/FCGR3. Tyrosine phosphorylation may also participate in membrane localization (By similarity).

## Tissue Specificity:

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).

## **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.

## Similarity:

Belongs to the inositol 1,4,5-trisphosphate 5-phosphatase family. Contains 1 SH2 domain.

## **SWISS:**

Q92835

#### Gene ID:

3635

## Database links:

Entrez Gene: 3635Human

Entrez Gene: 16331Mouse

Omim: 601582Human

SwissProt: Q92835Human

SwissProt: Q9ES52Mouse

Unigene: 262886Human

Unigene: 601911Human

Unigene: 15105 Mouse

## **Important Note:**

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Picture:	Sample: RAW264.7(Mouse) Cell Lysate at 30 ug Raji(Human) Cell Lysate at 30 ug Primary: Anti-SHIP1 (SL3567R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 133 kD Observed band size: 133 kD