



SHIP-1 (phospho Tyr1021) Polyclonal Antibody

Catalog No	YP-Ab-14371
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB;IF;ELISA;IHC
Gene Name	INPP5D
Immunogen	The antiserum was produced against synthesized peptide derived from human SHIP1 around the phosphorylation site of Tyr1021. AA range:987-1036
Specificity	Phospho-SHIP-1 (Y1021) Polyclonal Antibody detects endogenous levels of SHIP-1 protein only when phosphorylated at Y1021.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-2000; IF/ICC 1:50-200;ELISA 1:2000-20000;IHC-p 1:50-200
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	hp51CN;INPP5D;p150Ship;SHIP;SHIP 1;SHIP1;SIP 145;SHIP-1; 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
Observed Band	133kD
Calculated Molecular Weight	133kD
Cell Pathway	Cytoplasm . Cell membrane ; Peripheral membrane protein . Membrane raft . Cytoplasm, cytoskeleton . Membrane ; Peripheral membrane protein . 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. .
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).

Function

catalytic activity: Phosphatidylinositol 3,4,5-trisphosphate + H₂O = phosphatidylinositol 3,4-bisphosphate + phosphate. domain: The NPXY sequence motif found in many tyrosine-phosphorylated proteins is required for the specific binding of the PID domain. domain: The SH2 domain interacts with tyrosine phosphorylated forms of proteins such as SHC1 or PTPN11/SHP-2. It competes with that of GRB2 for binding to phosphorylated SHC1 to inhibit the Ras pathway. It is also required for tyrosine phosphorylation. enzyme regulation: Activated upon translocation to the sites of synthesis of PtdIns(3,4,5)P₃ in the membrane. 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.

Background

This gene is a member of the inositol polyphosphate-5-phosphatase (INPP5) family and encodes a protein with 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. 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. The protein is also partly localized to the nucleus, where it may be involved in nuclear inositol phosphate signaling processes. Overall, the protein functions as a negative regulator of myeloid cell proliferation and survival. Mutations in this gene are associated with defects and cancers of the immune system. A

matters needing attention

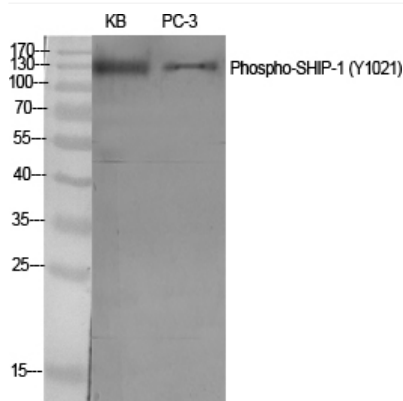
Avoid repeated freezing and thawing!

Usage suggestions

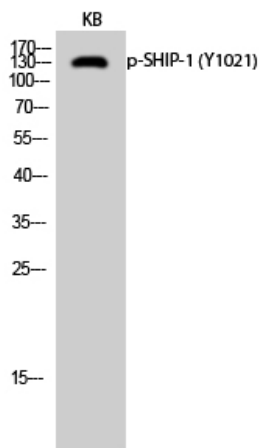
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



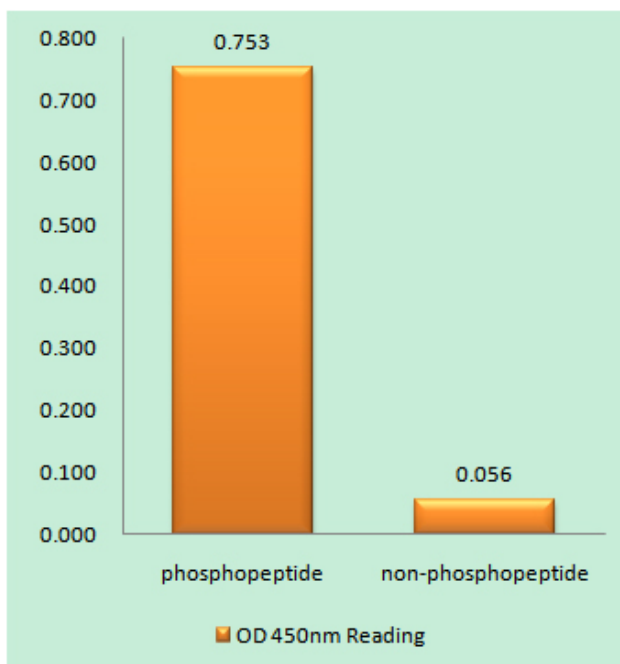
Products Images



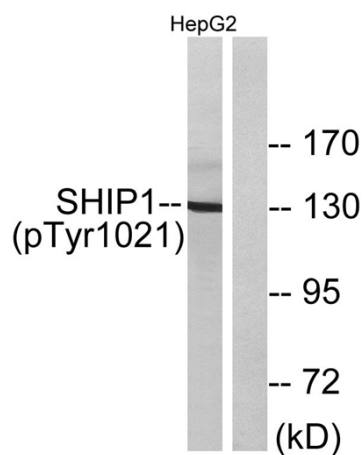
Western Blot analysis of various cells using Phospho-SHIP-1 (Y1021) Polyclonal Antibody diluted at 1:500



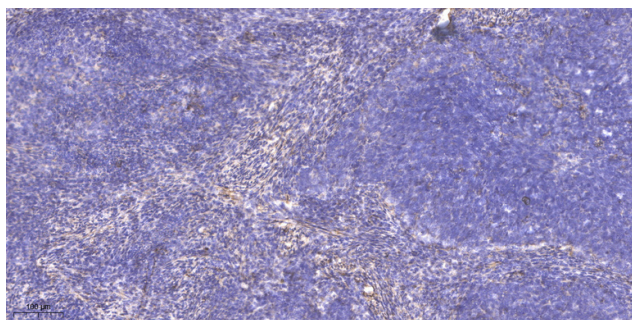
Western Blot analysis of KB cells using Phospho-SHIP-1 (Y1021) Polyclonal Antibody diluted at 1:500



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using SHIP1 (Phospho-Tyr1021) Antibody



Western blot analysis of lysates from HepG2 cells treated with TNF 200NG/ML 30', using SHIP1 (Phospho-Tyr1021) Antibody. The lane on the right is blocked with the phospho peptide.



Immunohistochemical analysis of paraffin-embedded human cervical carcinoma. 1, Antibody was diluted at 1:200(4° overnight). 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 45min).