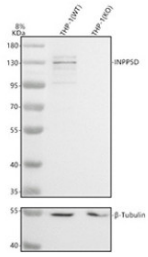
INPP5D Antibody / SHIP1 Polyclonal Antibody (RQ8586)

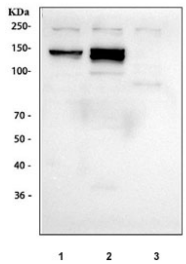
Catalog No.	Formulation	Size
RQ8586	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

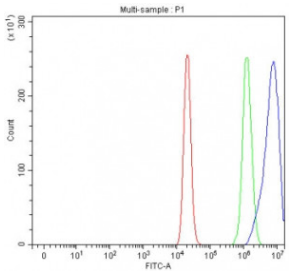
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q92835
Applications	Western blot: 0.5-1ug/ml Flow cytometry: 1-3ug/million cells ELISA: 0.1-0.5ug/ml
Limitations	This INPP5D Antibody / SHIP1 Polyclonal Antibody is available for research use only.



INPP5D Antibody WB Analysis of Wild-Type and INPP5D Knockout Human THP-1 Cells. Western blot analysis of human THP-1 wild-type (WT, lane 1) and INPP5D knockout (KO, lane 2) whole-cell lysates using SHIP1 Polyclonal Antibody at 0.5 ug/ml. Each lane contained 30 ug of total protein separated by 8% SDS-PAGE under reducing conditions. A prominent immunoreactive band near the 130 kDa molecular weight marker in WT lysate is substantially reduced in the KO sample, supporting target-dependent recognition of INPP5D. The observed migration is consistent with the predicted molecular weight of approximately 133 kDa. Beta-Tubulin serves as the loading control.



INPP5D Antibody WB Analysis of Human Raji, THP-1 and K562 Cell Lysates. Western blot analysis of human Raji (lane 1), THP-1 (lane 2), and K562 (lane 3) cell lysates using SHIP1 Polyclonal Antibody. An immunoreactive band near 145 kDa is detected most prominently in THP-1 lysate, with a weaker corresponding band in Raji lysate and no comparably prominent band in K562 lysate at the displayed exposure. The observed migration is above the predicted molecular weight of approximately 133 kDa for INPP5D.



INPP5D Antibody FACS Analysis of Human THP-1 Cells. Intracellular flow cytometry analysis of fixed and permeabilized human THP-1 cells using SHIP1 Polyclonal Antibody at 1 ug per million cells following blocking with goat serum. The blue histogram represents antibody-stained cells, the green histogram represents the isotype control, and the red histogram represents unstained cells. The antibody-stained population exhibits a rightward fluorescence shift relative to the isotype control, supporting intracellular detection of INPP5D under the tested conditions.

Description

INPP5D Antibody / SHIP1 Polyclonal Antibody targets inositol polyphosphate-5-phosphatase D (INPP5D), a lipid phosphatase commonly known as SHIP1 that helps control signaling downstream of immune receptors. SHIP1 belongs to the inositol 5-phosphatase family and removes the 5-position phosphate from phosphatidylinositol 3,4,5-trisphosphate (PIP3), generating phosphatidylinositol 3,4-bisphosphate (PI(3,4)P2). This reaction reshapes the pool of signaling lipids at cellular membranes and influences recruitment of proteins containing phosphoinositide-binding domains.

SHIP1 contains an N-terminal Src homology 2 (SH2) domain, a central catalytic phosphatase domain, and regions that mediate interactions with signaling adaptors and cytoskeletal regulators. Following receptor stimulation, SHIP1 can be recruited to phosphorylated protein complexes, positioning its catalytic activity near sites of phosphoinositide production. The enzyme can also hydrolyze soluble inositol 1,3,4,5-tetrakisphosphate, extending its regulatory functions beyond membrane-associated phosphoinositides. Its recruitment and activity depend on receptor identity, adaptor proteins, and cellular activation state.

SHIP1 is particularly important in hematopoietic and immune cells, including macrophages, neutrophils, B lymphocytes, and microglia. It participates in inhibitory signaling downstream of receptors such as Fc gamma RIIB and modulates responses to growth factors, cytokines, and immunoreceptor engagement. By changing PIP3 abundance, SHIP1 can restrain selected pathways associated with proliferation, survival, migration, and inflammatory activation. However, its product PI(3,4)P2 can also support signaling, so SHIP1 should not be viewed as a universal inhibitor of every PI3K-dependent response.

Altered INPP5D expression or activity has been studied in immune dysregulation, hematologic malignancies, and neuroinflammatory processes. In microglia, genetic and functional studies have linked INPP5D to pathways relevant to neurodegenerative disease, although the consequences of changing SHIP1 activity are context-dependent. Interpretation of protein abundance therefore benefits from consideration of receptor signaling, cellular identity, and phosphoinositide metabolism.

INPP5D Antibody is relevant to studies of immune-cell signal regulation, lipid phosphatase function, and the molecular mechanisms that coordinate activation thresholds with cellular homeostasis.

Explore additional antibodies targeting immune signaling proteins, inhibitory phosphatases, and regulators of hematopoietic cell activation in our Immunology Antibodies collection.

Application Notes

Optimal dilution of the INPP5D Antibody / SHIP1 Polyclonal Antibody should be determined by the researcher.

Immunogen

An E.coli-derived human recombinant protein (amino acids Q81-E1093) was used as the immunogen for the INPP5D antibody.

Storage

After reconstitution, the INPP5D antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

SHIP1 antibody, SHIP-1 antibody, SH2-Containing Inositol Phosphatase 1 antibody, SH2 Domain-Containing Inositol 5-Phosphatase 1 antibody, Inositol Polyphosphate-5-Phosphatase D antibody, Inositol Polyphosphate 5-Phosphatase D antibody, Phosphatidylinositol-3,4,5-Trisphosphate 5-Phosphatase 1 antibody, Inositol 5-Phosphatase SHIP1 antibody, SHIP1 Lipid Phosphatase antibody, INPP5D Inositol Phosphatase antibody

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