10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

SHP-1 Antibody
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AP52867

Specification

SHP-1 Antibody - Product Information

Application	**WB**
Primary Accession	P29350
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG2a**
Calculated MW	**68 KDa**

SHP-1 Antibody - Additional Information

Gene ID 5777

Other Names
70 kda SHP1L protein ; 70Z-SHP ; EC 3.1.3.48 ; HCP ; HCPH ; Hematopoietic cell phosphatase ; Hematopoietic cell protein tyrosine phosphatase ; Hematopoietic cell protein-tyrosine phosphatase ; HPTP1C ; Protein tyrosine phosphatase 1C ; Protein tyrosine phosphatase non receptor type 6 ; Protein tyrosine phosphatase SHP1 ; Protein-tyrosine phosphatase 1C ; protein-tyrosine phosphatase SHP 1 ; Protein-tyrosine phosphatase SHP-1 ; PTN6_HUMAN ; PTP 1C ; PTP-1C ; PTP1C ; PTPN6 ; SH PTP 1 ; SH PTP1 ; SH-PTP1 ; SHP 1 ; SHP 1L ; SHP1 ; SHP1L ; tyrosine protein phosphatase non receptor type 6 ; Tyrosine-protein phosphatase non-receptor type 6.

Dilution
WB~~1:1000

Format
Purified mouse monoclonal antibody in PBS(pH 7.4) containing with 0.09% (W/V) sodium azide and 50% glycerol.

Storage
Store at -20 °C.Stable for 12 months from date of receipt

SHP-1 Antibody - Protein Information

Name PTPN6

Synonyms HCP, PTP1C

Function
Tyrosine phosphatase enzyme that plays important roles in controlling immune signaling pathways and fundamental physiological processes such as hematopoiesis (PubMed:29925997). Dephosphorylates and negatively regulate several receptor tyrosine kinases (RTKs) such as EGFR,

PDGFR and FGFR, thereby modulating their signaling activities (PubMed:9733788, PubMed:21258366). When recruited to immunoreceptor tyrosine-based inhibitory motif (ITIM)-containing receptors such as immunoglobulin-like transcript 2/LILRB1, programmed cell death protein 1/PDCD1, CD3D, CD22 and other receptors involved in immune regulation, initiates their dephosphorylation and subsequently inhibits downstream signaling events (PubMed:11907092, PubMed:37932456, PubMed:38166031). Modulates the signaling of several cytokine receptors including IL-4 receptor (PubMed:9065461). Additionally, targets multiple cytoplasmic signaling molecules including STING1, LCK or STAT1 among others involved in diverse cellular processes including modulation of T-cell activation or cGAS-STING signaling (PubMed:34811497, PubMed:38532423). Within the nucleus, negatively regulates the activity of some transcription factors such as NFAT5 via direct dephosphorylation. Acts also as a key transcriptional regulator of hepatic gluconeogenesis by controlling recruitment of RNA polymerase II to the PCK1 promoter together with STAT5A (PubMed:37595871).

Cellular Location
Cytoplasm. Nucleus Note=In neurons, translocates into the nucleus after treatment with angiotensin II (By similarity). Shuttles between the cytoplasm and nucleus via its association with PDPK1.

Tissue Location
Isoform 1 is expressed in hematopoietic cells. Isoform 2 is expressed in non-hematopoietic cells

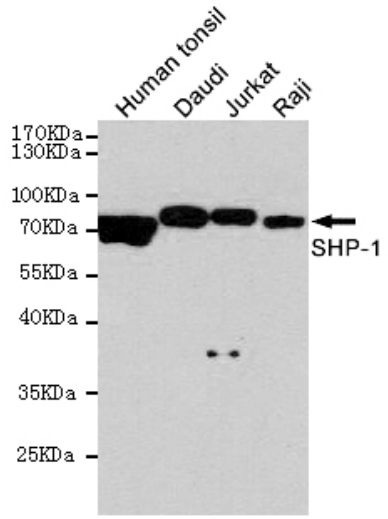
SHP-1 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

SHP-1 Antibody - Images

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999



Western blot detection of SHP-1 in Human tonsil,Daudi,Jurkat and Raji cell lysates using SHP-1 mouse mAb (1:1000 diluted).Predicted band size:67KDa.Observed band size:67KDa.

SHP-1 Antibody - Background

Modulates signaling by tyrosine phosphorylated cell surface receptors such as KIT and the EGF receptor/EGFR. The SH2 regions may interact with other cellular components to modulate its own phosphatase activity against interacting substrates. Together with MTUS1, induces UBE2V2 expression upon angiotensin II stimulation. Plays a key role in hematopoiesis.

SHP-1 Antibody - References

Yi T.,et al.Mol. Cell. Biol. 12:836-846(1992).
Shen S.H.,et al.Nature 352:736-739(1991).
Shen S.H.,et al.Nature 353:868-868(1991).
Plutzky J.,et al.Proc. Natl. Acad. Sci. U.S.A. 89:1123-1127(1992).
Banville D.,et al.Genomics 27:165-173(1995).