

SHP1 Antibody

Rabbit mAb

Catalog # AP90400

Product Information

Application	WB, IHC
Primary Accession	P29350
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	70Z-SHP; EC 3.1.3.48; HCP; HCPH; PTN6; PTP-1C; PTP1C; PTPN6; SH-PTP1; SHP1;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	67561

Additional Information

Dilution	WB 1:500~1:2000 IHC 1:50~1:200
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human SHP1
Description	The protein encoded by this gene is a member of the protein tyrosine phosphatase (PTP) family. PTPs are known to be signaling molecules that regulate a variety of cellular processes including cell growth, differentiation, mitotic cycle, and oncogenic transformation.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

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: 14739280 , PubMed: 29925997). Dephosphorylates and negatively regulate several receptor tyrosine kinases (RTKs) such as EGFR, PDGFR and FGFR, thereby modulating their signaling activities (PubMed: 21258366 , PubMed: 9733788). 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, CLEC12A and other receptors involved in immune regulation, initiates their dephosphorylation and subsequently inhibits downstream signaling events (PubMed: 11907092 , PubMed: 14739280 , 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. Also acts as a key transcriptional regulator of hepatic gluconeogenesis by controlling recruitment of RNA polymerase II to the PCK1 promoter together with STAT5A (PubMed:[37595871](#)).

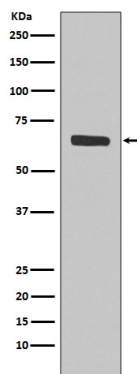
Cellular Location

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

Images



Western blot analysis of SHP1 expression in Jurkat cell lysate.

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Immunohistochemical analysis of paraffin-embedded rat spleen, using SHP1 Antibody.

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