

SHP1 Antibody
Rabbit mAb
Catalog # AP90400**Specification**

SHP1 Antibody - Product Information

| | |
|---|------------------------|
| Application | WB, IHC |
| Primary Accession | P29350 |
| Reactivity | Rat |
| 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 Da |

SHP1 Antibody - Additional Information

| | |
|------------------------------|---|
| 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. |

SHP1 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: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:21258366).

[9733788](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/11907092), PubMed: [14739280](http://www.uniprot.org/citations/14739280), PubMed: [37932456](http://www.uniprot.org/citations/37932456), PubMed: [38166031](http://www.uniprot.org/citations/38166031)). Modulates the signaling of several cytokine receptors including IL-4 receptor (PubMed: [9065461](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/34811497), PubMed: [38532423](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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

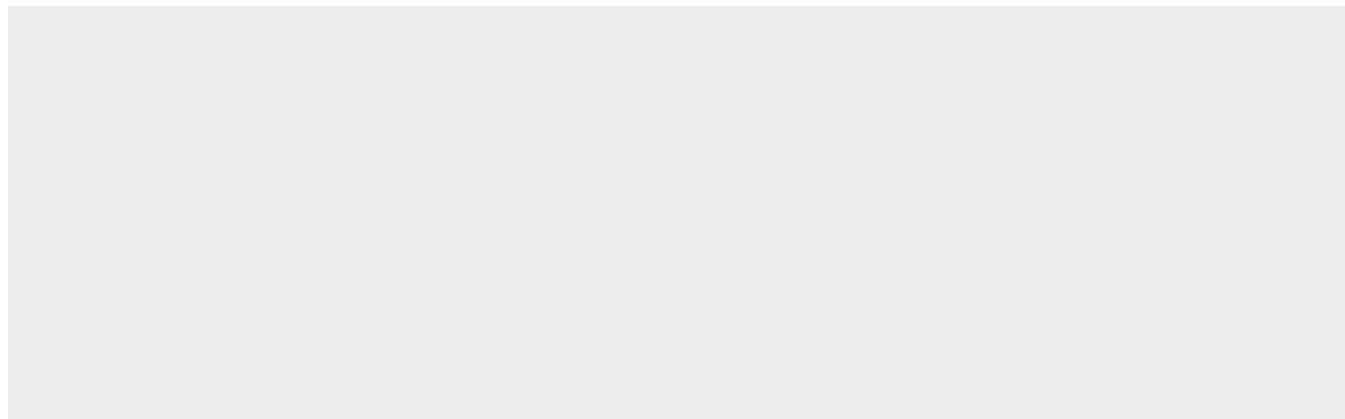
Isoform 1 is expressed in hematopoietic cells. Isoform 2 is expressed in non-hematopoietic cells

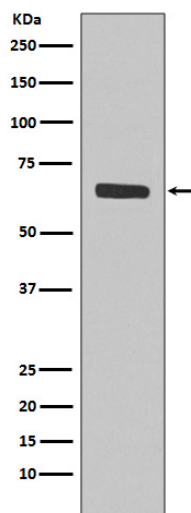
SHP1 Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

SHP1 Antibody - Images





Western blot analysis of SHP1 expression in Jurkat cell lysate.