

**Anti-SHPTP1 Antibody**  
**Rabbit polyclonal antibody to SHPTP1**  
**Catalog # AP60501**

**Specification**

---

**Anti-SHPTP1 Antibody - Product Information**

Application	<b>WB</b>
Primary Accession	<a href="#">P29350</a>
Other Accession	<a href="#">P29351</a>
Reactivity	<b>Human, Mouse, Rat</b>
Host	<b>Rabbit</b>
Clonality	<b>Polyclonal</b>
Calculated MW	<b>67561</b>

**Anti-SHPTP1 Antibody - Additional Information**

**Gene ID** 5777

**Other Names**

HCP; PTP1C; Tyrosine-protein phosphatase non-receptor type 6; Hematopoietic cell protein-tyrosine phosphatase; Protein-tyrosine phosphatase 1C; PTP-1C; Protein-tyrosine phosphatase SHP-1; SH-PTP1

**Target/Specificity**

Recognizes endogenous levels of SHPTP1 protein.

**Dilution**

WB~~WB (1/500 - 1/1000), IH (1/100 - 1/200)

**Format**

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

**Storage**

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

**Anti-SHPTP1 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:<a href="http://www.uniprot.org/citations/29925997" target="\_blank">29925997</a>). Dephosphorylates and negatively regulate several receptor tyrosine kinases (RTKs) such as EGFR, PDGFR and FGFR, thereby modulating their signaling activities (PubMed:<a

href="http://www.uniprot.org/citations/9733788" target="\_blank">9733788</a>, PubMed:<a href="http://www.uniprot.org/citations/21258366" target="\_blank">21258366</a>). 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:<a href="http://www.uniprot.org/citations/11907092" target="\_blank">11907092</a>, PubMed:<a href="http://www.uniprot.org/citations/37932456" target="\_blank">37932456</a>, PubMed:<a href="http://www.uniprot.org/citations/38166031" target="\_blank">38166031</a>). Modulates the signaling of several cytokine receptors including IL-4 receptor (PubMed:<a href="http://www.uniprot.org/citations/9065461" target="\_blank">9065461</a>). 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:<a href="http://www.uniprot.org/citations/34811497" target="\_blank">34811497</a>, PubMed:<a href="http://www.uniprot.org/citations/38532423" target="\_blank">38532423</a>). 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:<a href="http://www.uniprot.org/citations/37595871" target="\_blank">37595871</a>).

#### 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

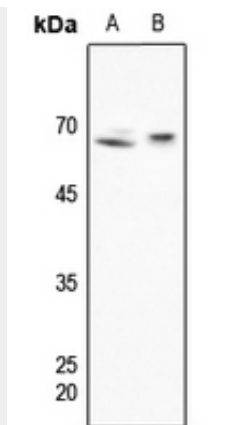
### Anti-SHPTP1 Antibody - Protocols

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

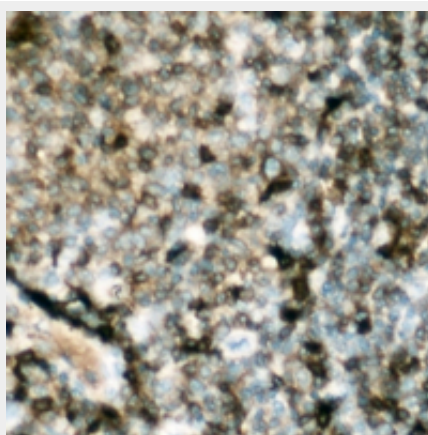
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Anti-SHPTP1 Antibody - Images





Western blot analysis of SHPTP1 expression in mouse spleen (A), rat spleen (B) whole cell lysates.



Immunohistochemical analysis of SHPTP1 staining in human lymph node formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

#### **Anti-SHPTP1 Antibody - Background**

KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human SHPTP1. The exact sequence is proprietary.