

**PTPN6 Antibody**  
**Purified Mouse Monoclonal Antibody**  
**Catalog # AO2196a****Specification****PTPN6 Antibody - Product Information**

Application	WB, FC, ICC, E
Primary Accession	<a href="#">P29350</a>
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	67.6kDa KDa

**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. N-terminal part of this PTP contains two tandem Src homolog (SH2) domains, which act as protein phospho-tyrosine binding domains, and mediate the interaction of this PTP with its substrates. This PTP is expressed primarily in hematopoietic cells, and functions as an important regulator of multiple signaling pathways in hematopoietic cells. This PTP has been shown to interact with, and dephosphorylate a wide spectrum of phospho-proteins involved in hematopoietic cell signaling. Multiple alternatively spliced variants of this gene, which encode distinct isoforms, have been reported.

**Immunogen**

Purified recombinant fragment of human PTPN6 (AA: 243-541) expressed in E. Coli.

**Formulation**

Purified antibody in PBS with 0.05% sodium azide

**PTPN6 Antibody - Additional Information**

**Gene ID** 5777

**Other Names**

Tyrosine-protein phosphatase non-receptor type 6, 3.1.3.48, Hematopoietic cell protein-tyrosine phosphatase, Protein-tyrosine phosphatase 1C, PTP-1C, Protein-tyrosine phosphatase SHP-1, SH-PTP1, PTPN6, HCP, PTP1C

**Dilution**

WB~~1/500 - 1/2000  
FC~~1/200 - 1/400  
ICC~~N/A  
E~~1/10000

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

## Precautions

PTPN6 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## PTPN6 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/14739280" target="\_blank">14739280</a>, 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/21258366" target="\_blank">21258366</a>, PubMed:<a href="http://www.uniprot.org/citations/9733788" target="\_blank">9733788</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, CLEC12A 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/14739280" target="\_blank">14739280</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. 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:<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

## PTPN6 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](#)