

## PTPN6

**Reactivity:** Human Mouse Rat

**Tested applications:** WB IHC IF

**Recommended Dilution:** WB 1:500 - 1:2000 IHC 1:50 - 1:200 IF 1:50 - 1:200

**Calculated MW:** 65kDa

**Observed MW:** Refer to Figures

**Immunogen:**

Recombinant protein of human PTPN6

**Storage Buffer:**

Store at -20. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3.

**Concentration:**

bo

**Synonym:**

PTPN6;HCP;HCPH;HPTP1C;PTP-1C;SH-PTP1;SHP-1;SHP-1L;SHP1; SH-PTP1;

**Catalog #:** A1446

**Antibody Type:**

Polyclonal Antibody

**Species:** Rabbit

**Gene ID:** 5777

**Isotype:** IgG

**Swiss Prot:** P29350

**Purity:** Affinity purification

For research use only.

**Background:**

SHP-1 (PTPN6) is a non-receptor protein tyrosine phosphatase that is expressed primarily in hematopoietic cells. The enzyme is composed of two SH2 domains, a tyrosine phosphatase catalytic domain, and a carboxy-terminal regulatory domain (1). SHP-1 removes phosphates from target proteins to downregulate several tyrosine kinase-regulated pathways. In hematopoietic cells, the amino-terminal SH2 domain of SHP-1 binds to tyrosine phosphorylated erythropoietin receptors (EpoR) to negatively regulate hematopoietic growth (2). Overexpression of SHP-1 in epithelial cells results in dephosphorylation of the Ros receptor tyrosine kinase and subsequent downregulation of Ros-dependent cell proliferation and transformation (3). Following ligand binding in myeloid cells, SHP-1 associates with the IL-3R chain and downregulates IL-3-induced tyrosine phosphorylation and cell proliferation (4). Because SHP-1 downregulates various proliferation pathways, SHP-1 is considered a potential tumor suppressor and angiogenesis regulator (5,6).

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