

## Product datasheet for **TA327048S**

### **SHP1 (PTPN6) Rabbit Polyclonal Antibody**

#### **Product data:**

Product Type:	Primary Antibodies
Applications:	ICC/IF, WB
Recommended Dilution:	WB 1:500 - 1:2000;IF 1:50- 1:200
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Recombinant protein of human PTPN6
Formulation:	Store at -20C or -80C. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3
Concentration:	lot specific
Purification:	Affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	protein tyrosine phosphatase, non-receptor type 6
Database Link:	<a href="#">NP_002822</a> <a href="#">Entrez Gene 15170 Mouse</a> <a href="#">Entrez Gene 116689 Rat</a> <a href="#">Entrez Gene 5777 Human</a> <a href="#">P29350</a>



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**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. 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. 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. Following ligand binding in myeloid cells, SHP-1 associates with the IL-3R  $\beta$  chain and downregulates IL-3-induced tyrosine phosphorylation and cell proliferation. Because SHP-1 downregulates various proliferation pathways, SHP-1 is considered a potential tumor suppressor and angiogenesis regulator.

**Synonyms:**

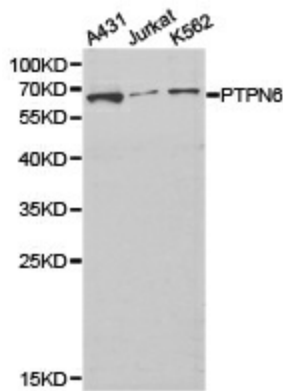
HCP; HCPH; HPTP1C; PTP-1C; SH-PTP1; SHP-1; SHP-1L; SHP1

**Protein Families:**

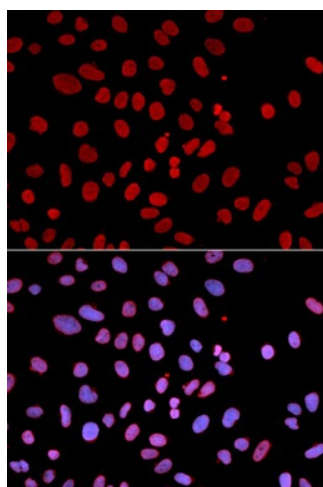
Druggable Genome, Phosphatase, Stem cell - Pluripotency

**Protein Pathways:**

Adherens junction, B cell receptor signaling pathway, Jak-STAT signaling pathway, Natural killer cell mediated cytotoxicity, T cell receptor signaling pathway

**Product images:**

Western blot analysis of extracts of various cell lines, using PTPN6 antibody.



Immunofluorescence analysis of U2OS cell using PTPN6 antibody. Blue: DAPI for nuclear staining.