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**Product Name: SH-PTP1 Rabbit Polyclonal Antibody****Catalog #: APRab17872**

For research use only.

**Summary**

<b>Description</b>	Rabbit polyclonal Antibody
<b>Host</b>	Rabbit
<b>Application</b>	WB,IHC,ICC/IF,ELISA
<b>Reactivity</b>	Human,Mouse,Rat
<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Unmodified
<b>Isotype</b>	IgG
<b>Clonality</b>	Polyclonal
<b>Form</b>	Liquid
<b>Concentration</b>	1mg/ml
<b>Storage</b>	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
<b>Shipping</b>	Ice bags
<b>Buffer</b>	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
<b>Purification</b>	Affinity purification

**Application**

<b>Dilution Ratio</b>	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:10000-1:20000
<b>Molecular Weight</b>	67kDa

**Antigen Information**

<b>Gene Name</b>	PTPN6 PTPN6; HCP; PTP1C; Tyrosine-protein phosphatase non-receptor type 6; Hematopoietic cell
<b>Alternative Names</b>	protein-tyrosine phosphatase; Protein-tyrosine phosphatase 1C; PTP-1C; Protein-tyrosine phosphatase SHP-1; SH-PTP1
<b>Gene ID</b>	5777.0
<b>SwissProt ID</b>	P29350
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human SHP-1. AA range:502-551

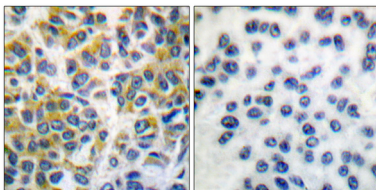
## Background

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 phosphotyrosine 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. [provided by RefSeq, Jul]catalytic activity:Protein tyrosine phosphate + H(2)O = protein tyrosine + phosphate.,function:Plays a key role in hematopoiesis. This PTPase activity may directly link growth factor receptors and other signaling proteins through protein-tyrosine phosphorylation. The SH2 regions may interact with other cellular components to modulate its own phosphatase activity against interacting substrates. Together with MTUS1, induces UBE2V2 expression upon angiotensin II stimulation.,PTM:Phosphorylated on serine and tyrosine residues.,similarity:Belongs to the protein-tyrosine phosphatase family. Non-receptor class 2 subfamily.,similarity:Contains 1 tyrosine-protein phosphatase domain.,similarity:Contains 2 SH2 domains.,subcellular location:In neurons, translocates into the nucleus after treatment with angiotensin II.,subunit:Monomer. Interacts with MTUS1 (By similarity). Binds PTPNS1, LILRB1 and LILRB2. Interacts with FCRL2, FCRL3, FCRL4, CD300LF and CD84.,tissue specificity:Isoform 1 is expressed in hematopoietic cells while isoform 2 is expressed in non-hematopoietic cells.,

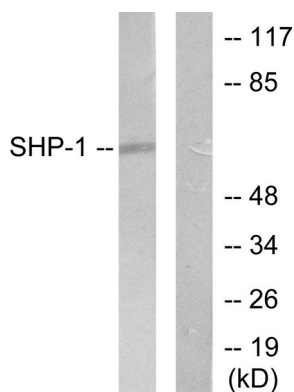
## Research Area

B\_Cell\_Antigen; Adherens\_Junction; T\_Cell\_Receptor; MAPK; Protein\_Acetylation

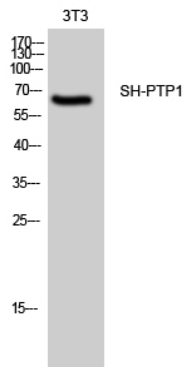
## Image Data



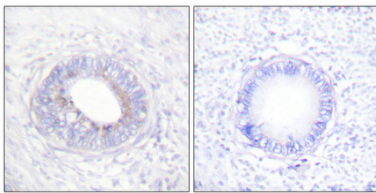
Immunohistochemistry analysis of paraffin-embedded human breast carcinoma tissue, using SHP-1 Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from NIH/3T3 cells, using SHP-1 Antibody. The lane on the right is blocked with the synthesized peptide.



Western Blot analysis of 3T3 cells using SH-PTP1 Polyclonal Antibody



Immunohistochemical analysis of paraffin-embedded Human colon cancer. Antibody was diluted at 1:100 (4°, overnight). High-pressure and temperature Tris-EDTA, pH 8.0 was used for antigen retrieval. Negative control (right) obtained from antibody was pre-absorbed by immunogen peptide.