

# Rabbit Anti-phospho-PTPN6 (Ser591) antibody

# SL5578R

Product Name:	phospho-PTPN6 (Ser591)
Chinese Name:	磷酸化蛋白酪氨酸磷酸酶1C抗体
Alias:	PTPN6(phospho S591); SHP1(phospho S591); p-SHP1(Ser591); SHP-1(Phospho-Tyr591); PTPN6(phospho Y591); PTPN6(phospho Y591); SHP1; 70 kda SHP 1L protein; 70 kda SHP1L protein; 70Z-SHP; EC 3.1.3.48; HCP; HCPH; Hematopoietic cell phosphatase; Hematopoietic cell protein tyrosine phosphatase; Hematopoietic cell protein-tyrosine phosphatase; HPTP 1C; HPTP1C; MGC124580; Protein tyrosine phosphatase 1C; Protein tyrosine phosphatase non receptor type 6; Protein tyrosine phosphatase SHP 1; Protein-tyrosine phosphatase 1C; Protein-tyrosine phosphatase SHP-1; PTN6_HUMAN; PTP 1C; PTP-1C; PTP1C; PTPN 6; PTPN6; SH PTP 1; SH PTP1; SH-PTP1; SHP 1; SHP 1L; SHPTP 1; SHPTP1; Tyrosine protein phosphatase non-receptor type 6; Tyrosine-protein phosphatase non-receptor type 6.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human, Mouse, Rat, Dog, Pig, Horse,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=1µg/TestIF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	65kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated Synthesised phosphopeptide derived from human PTPN6 around the phosphorylation site of Ser591:KG(p-S)LK
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.

# Storage:

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

#### PubMed:

#### PubMed

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. [provided by RefSeq, Jul 2008]

#### **Function:**

Modulates signaling by tyrosine phosphorylated cell surface receptors such as KIT and the EGF receptor/EGFR. 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. Plays a key role in hematopoiesis.

#### Product Detail:

#### **Subunit:**

Monomer. Interacts with MTUS1. Interacts with MILR1 (tyrosine-phosphorylated). Interacts with KIT. Binds PTPNS1, LILRB1 and LILRB2. Interacts with FCRL2, FCRL3, FCRL4, CD300LF, CDK2 and CD84. Interacts with KIR2DL1; the interaction is enhanced by ARRB2. Interacts (via SH2 1 domain) with ROS1; the interaction is direct and promotes ROS1 dephosphorylation. Interacts with EGFR; inhibits EGFR-dependent activation of MAPK/ERK. Interacts with LYN. Interacts with the tyrosine phosphorylated form of PDPK1.

#### **Subcellular Location:**

Cytoplasm. Nucleus. Note=In neurons, translocates into the nucleus after treatment with angiotensin II. Shuttles between the cytoplasm and nucleus via its association with PDPK1.

#### Tissue Specificity:

Isoform 1 is expressed in hematopoietic cells. Isoform 2 is expressed in non-hematopoietic cells.

#### Post-translational modifications:

Phosphorylated on tyrosine residues. Binding of KITLG/SCF to KIT increases tyrosine phosphorylation. Phosphorylation at Tyr-564 enhances phosphatase activity.

Similarity:

Belongs to the protein-tyrosine phosphatase family. Non-receptor class 2 subfamily. Contains 2 SH2 domains.

Contains 1 tyrosine-protein phosphatase domain.

SWISS: P29350

Gene ID:

5777

## **Database links:**

Entrez Gene: 5777Human

Entrez Gene: 15170 Mouse

Entrez Gene: 116689Rat

Omim: 176883Human

SwissProt: P29350Human

SwissProt: P29351Mouse

SwissProt: P81718Rat

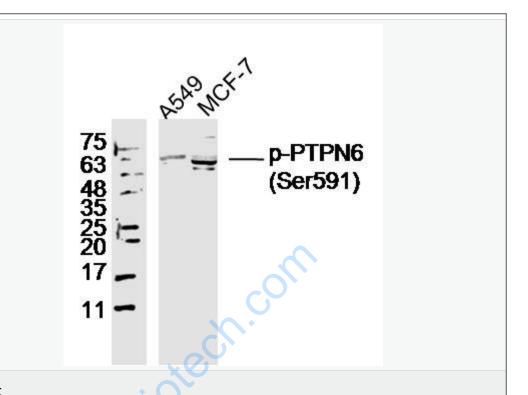
Unigene: 63489Human

Unigene: 271799Mouse

Unigene: 18985Rat

## **Important Note:**

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.



## Picture:

Sample:

A549 Cell (Human) Lysate at 40 ug

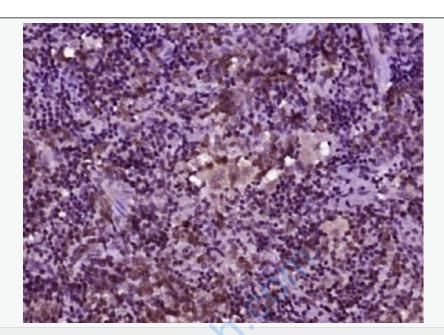
MCF-7 Cell (Human) Lysate at 40 ug

Primary: Anti-phospho-PTPN6(Ser591) (SL5578R) at 1/300 dilution

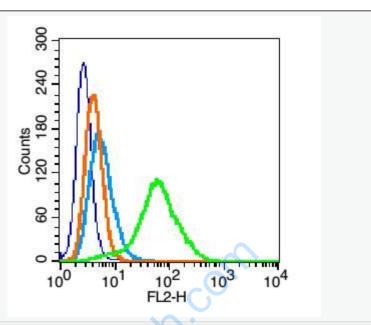
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 65 kD

Observed band size: 65 kD



Paraformaldehyde-fixed, paraffin embedded (rat spleen tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (PTPN6(Ser591)) Polyclonal Antibody, Unconjugated (SL5578R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Blank control: Hela cells(fixed with 2% paraformaldehyde (10 min), then permeabilized with 90% ice-cold methanol for 30 min on ice).

Primary Antibody: Rabbit Anti-phospho-PTPN6(Ser591) antibody(SL5578R),

Dilution: 1μg in 100 μL 1X PBS containing 0.5% BSA;

 $Isotype\ Control\ Antibody:\ Rabbit\ IgG(orange)\ , used\ under\ the\ same\ conditions\ );$ 

Secondary Antibody: Goat anti-rabbit IgG-PE(white blue), Dilution: 1:200 in 1 X

PBS containing 0.5% BSA.