Rabbit PTPN6 Polyclonal Antibody | anti-PTPN6 antibody

PTPN6 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326186	**Rabbit**	**Human, Mouse, Rat**	**ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot**

PRODUCT SYNONYMS

PTPN6; Polyclonal Antibody; PTPN6 Antibody; 70Z-SHP; EC 3.1.3.48; HCP; HCPH; Hematopoietic cell phosphatase; Hematopoietic cell protein tyrosine phosphatase; Hematopoietic cell protein-tyrosine phosphatase; HPTP1C; Protein tyrosine phosphatase 1C; Protein tyrosine phosphatase non receptor type 6; Protein tyrosine phosphatase SHP1; Protein-tyrosine phosphatase 1C; protein-tyrosine phosphatase SHP 1; Protein-tyrosine phosphatase SHP-1; PTN6_HUMAN; PTP 1C; PTP-1C; PTP1C; Ptpn6; SH PTP 1; SH PTP1; SH-PTP1; SHP 1; SHP 1L; SHP1; SHP1L; tyrosine protein phosphatase non receptor type 6; Tyrosine-protein phosphatase non-receptor type 6; anti-PTPN6 antibody

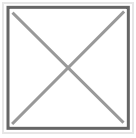
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	PTPN6 antibody detects endogenous levels of total PTPN6
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	595
Applicable Applications for anti-PTPN6 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human PTPN6
Subcellular Location	Cytoplasm. Nucleus. In neurons, translocates into the nucleus after treatment with angiotensin II.
Tissue Specificity	Isoform 1 is expressed in hematopoietic cells. Isoform 2 is expressed in non-hematopoietic cells.
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES

WB (Western Blot)
Western blot analysis of RAW264.7 cell lysate, using PTPN6 Antibody. The lane on the left is treated with the antigen-specific peptide.

IF (Immunofluorescence)
AAA326186 staining RAW264.7 cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody, diluted at 1/600, was used as secondary antibody.



IHC (Immunohistochemistry)
AAA326186 at 1/100 staining Human gastric tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

ADDITIONAL INFORMATION

Related Product Information for anti-PTPN6 antibody	Description: 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 beta 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). 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. Subunit Structure: Monomer. Interacts with MTUS1 (By similarity). Interacts with MILR1 (tyrosine-phosphorylated) (By similarity). Interacts with KIT (By similarity). Interacts with SIRPA/PTPNS1 (PubMed:9712903). Interacts with LILRB1 and LILRB2 (PubMed:9285411, PubMed:9842885). Interacts with FCRL2 and FCRL4 (PubMed:11162587, PubMed:14597715). Interacts with FCRL3 and FCRL6 (tyrosine phosphorylated form) (PubMed:20933011, PubMed:11162587, PubMed:19843936). Interacts with CD84 (PubMed:11414741). Interacts with CD300LF (PubMed:15184070). Interacts with CDK2 (PubMed:21262353). Interacts with KIR2DL1; the interaction is enhanced by ARRB2 (PubMed:18604210). Interacts (via SH2 1 domain) with ROS1; the interaction is direct and promotes ROS1 dephosphorylation (PubMed:11266449). Interacts with EGFR; inhibits EGFR-dependent activation of MAPK/ERK (PubMed:21258366). Interacts with LYN (PubMed:10574931). Interacts with the tyrosine phosphorylated form of PDPK1 (PubMed:19591923). Interacts with CEACAM1 (via cytoplasmic domain); this interaction depends on the monomer/dimer equilibrium and is phosphorylation-dependent (By similarity). Interacts with MPIG6B (via ITIM motif) (PubMed:23112346). Post-translational Modifications: Phosphorylated on tyrosine residues. Binding of KITLG/SCF to KIT increases tyrosine phosphorylation (By similarity). Phosphorylation at Tyr-564 enhances phosphatase activity. Similarity: The N-terminal SH2 domain functions as an auto-inhibitory domain, blocking the catalytic domain in the ligand-free close conformation. Belongs to the protein-tyrosine phosphatase family. Non-receptor class 2 subfamily.

NCBI AND UNIPROT INFORMATION

NCBI GI #	18104989
NCBI GeneID	5777
NCBI Accession #	NP_002822.2
NCBI GenBank Nucleotide #	NM_002831.5
UniProt Accession #	P29350; Q969V8; Q9UK67; A8K306; G3V0F8
Molecular Weight	Observed: 65 kDa Predicted: 68 kDa
NCBI Official Full Name	tyrosine-protein phosphatase non-receptor type 6 isoform 1
NCBI Official Synonym Full Names	protein tyrosine phosphatase, non-receptor type 6
NCBI Official Symbol	PTPN6

NCBI Official Synonym Symbols	HCP; HCPH; SHP1; SHP-1; HPTP1C; PTP-1C; SHP-1L; SH-PTP1
NCBI Protein Information	tyrosine-protein phosphatase non-receptor type 6
UniProt Protein Name	Tyrosine-protein phosphatase non-receptor type 6
UniProt Gene Name	**PTPN6**
UniProt Synonym Gene Names	HCP; PTP1C; PTP-1C

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
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