

Rabbit PTPN2 Polyclonal Antibody | anti-PTPN2 antibody

PTPN2 Antibody

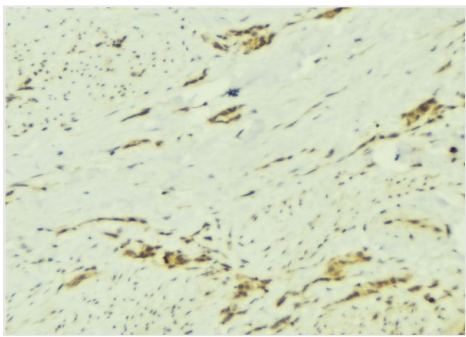
CATALOG # AAA326394	HOST Rabbit	REACTIVITY Human, Mouse, Rat	APPLICATIONS ELISA, Immunohistochemistry, Western Blot
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PRODUCT SYNONYMS

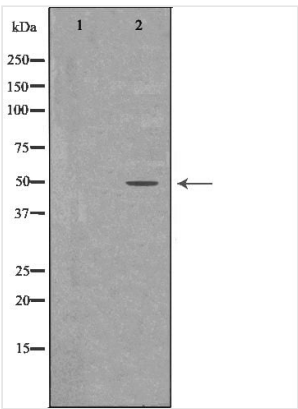
PTPN2; Polyclonal Antibody; PTPN2 Antibody; Protein tyrosine phosphatase non receptor type 2; PTN2; PTN2_HUMAN; PTPN 2; Ptpn2; PTPT; T cell protein tyrosine phosphatase; T-cell protein-tyrosine phosphatase; TC PTP; TCELLPTP; TCPTP; Tyrosine protein phosphatase non receptor type 2; Tyrosine-protein phosphatase non-receptor type 2; anti-PTPN2 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	PTPN2 antibody detects endogenous levels of total PTPN2
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	410
Applicable Applications for anti-PTPN2 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human PTPN2
Subcellular Location	Cytoplasm; Nucleus and Endoplasmic Reticulum.
Tissue Specificity	Ubiquitously expressed. Isoform 2 is probably the major isoform. Isoform 1 is expressed in T-cells and in placenta.
Predicted Cross Reactivity	Pig, Bovine, Horse, Sheep, Rabbit, Dog, Chicken, Xenopus
Similarity	Pig (82%), Bovine (82%), Horse (91%), Sheep (82%), Rabbit (100%), Dog (91%), Chicken (82%), Xenopus (80%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



IHC (Immunohistochemistry)
AAA326394 at 1/100 staining Human breast cancer 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.



WB (Western Blot)
Western blot analysis of K562 whole cell lysates, using PTPN2 Antibody. The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-PTPN2 antibody

Description: The protein encoded by this gene is a member of the protein tyrosine phosphatase (PTP) family. Members of the PTP family share a highly conserved catalytic motif, which is essential for the catalytic activity. PTPs are known to be signaling molecules that regulate a variety of cellular processes including cell growth, differentiation, mitotic cycle, and oncogenic transformation. Epidermal growth factor receptor and the adaptor protein Shc were reported to be substrates of this PTP, which suggested the roles in growth factor mediated cell signaling. Multiple alternatively spliced transcript variants encoding different isoforms have been found. Two highly related but distinctly processed pseudogenes that localize to chromosomes 1 and 13, respectively, have been reported. [provided by RefSeq, May 2011]

Function: Non-receptor type tyrosine-specific phosphatase that dephosphorylates receptor protein tyrosine kinases including INSR, EGFR, CSF1R, PDGFR. Also dephosphorylates non-receptor protein tyrosine kinases like JAK1, JAK2, JAK3, Src family kinases, STAT1, STAT3 and STAT6 either in the nucleus or the cytoplasm. Negatively regulates numerous signaling pathways and biological processes like hematopoiesis, inflammatory response, cell proliferation and differentiation, and glucose homeostasis. Plays a multifaceted and important role in the development of the immune system. Functions in T-cell receptor signaling through dephosphorylation of FYN and LCK to control T-cells differentiation and activation. Dephosphorylates CSF1R, negatively regulating its downstream signaling and macrophage differentiation. Negatively regulates cytokine (IL2/interleukin-2 and interferon)-mediated signaling through dephosphorylation of the cytoplasmic kinases JAK1, JAK3 and their substrate STAT1, that propagate signaling downstream of the cytokine receptors. Also regulates the IL6/interleukin-6 and IL4/interleukin-4 cytokine signaling through dephosphorylation of STAT3 and STAT6 respectively. In addition to the immune system, it is involved in anchorage-dependent, negative regulation of EGF-stimulated cell growth. Activated by the integrin ITGA1/ITGB1, it dephosphorylates EGFR and negatively regulates EGF signaling. Dephosphorylates PDGFRB and negatively regulates platelet-derived growth factor receptor-beta signaling pathway and therefore cell proliferation. Negatively regulates tumor necrosis factor-mediated signaling downstream via MAPK through SRC dephosphorylation. May also regulate the hepatocyte growth factor receptor signaling pathway through dephosphorylation of the hepatocyte growth factor receptor MET. Plays also an important role in glucose homeostasis. For instance, negatively regulates the insulin receptor signaling pathway through the dephosphorylation of INSR and control gluconeogenesis and liver glucose production through negative regulation of the IL6 signaling pathways. May also bind DNA.

Subunit Structure: Interacts with RMDN3. Isoform 1 interacts with TMED9. Isoform 1 interacts with STX17; dephosphorylates STX17. Interacts with ITGA1 (via cytoplasmic domain); activates the phosphatase activity towards EGFR. Interacts with TRAF2; probably involved in tumor necrosis factor-mediated signaling. Interacts with MET.

Post-translational Modifications: Isoform 2: Specifically phosphorylated in a cell cycle-dependent manner by cyclin-dependent kinases CDK1 and CDK2. Probably activated through phosphorylation by PKR.

Similarity: Belongs to the protein-tyrosine phosphatase family. Non-receptor class 1 subfamily.

NCBI AND UNIPROT INFORMATION

NCBI GI #	333108235
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NCBI GeneID	5771
NCBI Accession #	NP_001193942.1
NCBI GenBank Nucleotide #	NM_001207013.1
UniProt Accession #	P17706; Q96AU5; Q96HR2; A8K955; A8MXU3; K7ENG3
Molecular Weight	Observed: 49 kDa Predicted: 49 kDa
NCBI Official Full Name	tyrosine-protein phosphatase non-receptor type 2 isoform 4
NCBI Official Synonym Full Names	protein tyrosine phosphatase, non-receptor type 2
NCBI Official Symbol	PTPN2
NCBI Official Synonym Symbols	PTN2; PTPT; TCPTP; TC-PTP; TCELLPTP
NCBI Protein Information	tyrosine-protein phosphatase non-receptor type 2
UniProt Protein Name	Tyrosine-protein phosphatase non-receptor type 2
UniProt Gene Name	PTPN2
UniProt Synonym Gene Names	PTPT; TCPTP

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.

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Online datasheet: <https://www.aaabiotech.com/polyclonal/ptpn2-antibody-immunohistochemistry-western-blot-elisa/326394>