

Rabbit PTP1B Polyclonal Antibody | anti-PTP1B antibody

PTP1B (a.a.146-157) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA71692	Rabbit	Human, Rat, Mouse	Immunocytochemistry, ELISA, Western Blot

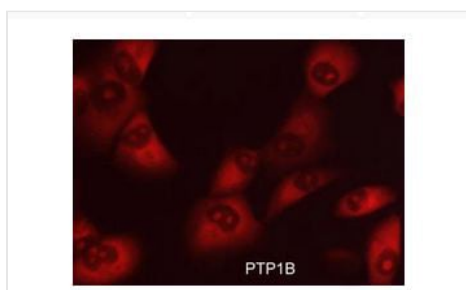
PRODUCT SYNONYMS

PTP1B; Polyclonal Antibody; PTP1B (a.a.146-157) Antibody; PTP1B (a.a.146-157); PTP1B 146; anti-PTP1B antibody

PRODUCT SPECIFICATIONS

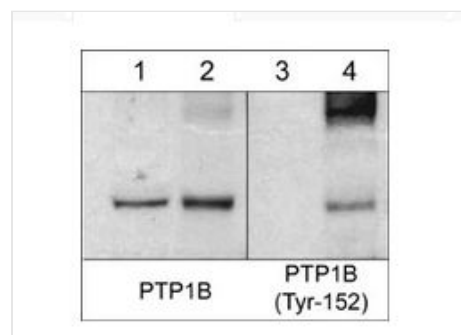
Host	Rabbit
Reactivity	Human, Rat, Mouse
Clonality	Polyclonal
Specificity	This antibody was affinity purified with PTP1B (a.a. 146-157) peptide. The purified antibody detects a 50kDa* band corresponding to PTP1B in western blots of human A431, Jurkat, HeLa, and mouse SYF cells. This reactivity can be specifically blocked using PTP1B (a.a. 146-157) peptide (PX2355).
Form/Format	Rabbit polyclonal, affinity-purified antibody is supplied in 100ul phosphate-buffered saline, 50% glycerol, 1mg/ml BSA, and 0.05% sodium azide.
Applicable Applications for anti-PTP1B antibody	ICC (Immunocytochemistry), ELISA, WB (Western Blot)
Immunogen	PTP1B synthetic peptide (coupled to carrier protein) corresponds to amino acids 146 to 157 in human PTP1B. This sequence has significant homology to the conserved site in rat and mouse PTP1B, and has homology to TC-PTP and MPTP, but not other protein tyrosine phosphatase family members.
Preparation and Storage	Store at -20 degree C. Stable for 1 year.

IMAGES



ICC (Immunocytochemistry)

Immunocytochemical labeling of PTP1B in aldehyde-fixed and NP-40 permeabilized human NCI-H1915 lung carcinoma cells. The cells were labeled with rabbit polyclonal anti-PTP1B (PP2351) antibody. The antibody was detected using appropriate secondary antibody conjugated to DyLight 594.



WB (Western Blot)

Western blot image of mouse SYF cSrc-transformed cells untreated (lanes 1 & 3) or treated (lanes 2 & 4) with pervanadate (1mM for 30 min.). The blots were probed with rabbit polyclonal anti-PTP1B (a.a. 146-157) (lanes 1 & 2) or anti-PTP1B (Tyr-152) (lanes 3 & 4).

ADDITIONAL INFORMATION

Related Product Information for anti-PTP1B antibody	PTP1B is a nonreceptor type protein tyrosine phosphatase that has essential roles in insulin and leptin signaling, as well as important functions in growth factor and integrin signaling. The structure of PTP1B includes a conserved phosphatase domain, C-terminal hydrophobic residues for targeting to the cytoplasmic face of the endoplasmic reticulum, and proline-rich regions characteristic of SH3 domain binding motifs. PTP1B can interact with N-Cadherin and dephosphorylate beta-catenin associated with cadherin complexes. PTP1B also interacts with Insulin and EGF receptors, and undergoes phosphorylation after receptor stimulation. Tyrosine phosphorylation at Tyr-66, Tyr-152, and Tyr-153 occurs after insulin receptor activation, and tyrosine phosphorylation of Tyr-152 may be required for interactions with N-Cadherin. In addition, Akt can phosphorylate Ser-50 and this phosphorylation can reduce PTP1B activity.
References	Lingamanaidu, V. et al. (2001) Molecular Endocrinology 15(10):1768. Rhee, J. et al. (2001) J. Biol. Chem. 276(9):6640. Bandyopadhyay, D. et al. (1997) J. Biol. Chem. 272(3):1639.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4506289
NCBI GeneID	5770
NCBI Accession #	NP_002818.1
NCBI GenBank Nucleotide #	NM_002827.2
UniProt Accession #	P18031; Q5TGD8; Q9BQV9; Q9NQQ4
Molecular Weight	49,967 Da
NCBI Official Full Name	tyrosine-protein phosphatase non-receptor type 1
NCBI Official Synonym Full Names	protein tyrosine phosphatase, non-receptor type 1
NCBI Official Symbol	PTPN1
NCBI Official Synonym Symbols	PTP1B
NCBI Protein Information	tyrosine-protein phosphatase non-receptor type 1; protein tyrosine phosphatase 1B; protein-tyrosine phosphatase 1B; protein tyrosine phosphatase, placental
UniProt Protein Name	Tyrosine-protein phosphatase non-receptor type 1
UniProt Gene Name	PTPN1
UniProt Synonym Gene Names	PTP1B; PTP-1B
UniProt Entry Name	PTN1_HUMAN

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.