

Product datasheet for **TA590672**

PTP1B (PTPN1) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	WB 1:20000, IHC 1:150, ELISA 1:100-1:2000
Reactivity:	Human
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	DNA immunization. In vivo generated recombinant protein fragment
Formulation:	20 mM Potassium Phosphate, 150 mM Sodium Chloride, pH 7.0
Concentration:	0.8mg/ml
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	protein tyrosine phosphatase non-receptor type 1
Database Link:	NP_002818 Entrez Gene 5770 Human P18031



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Background:

The non-transmembrane protein tyrosine phosphatase, PTP1B, comprises 435 amino acids, of which the C-terminal 114 residues have been implicated in controlling both localization and function of this enzyme. Increased phosphorylation of PTP1B is seen to accompany the transition from G2 to M phase of the cell cycle. Immunofluorescence experiments indicate that PTP-1B is localized predominantly in the endoplasmic reticulum (ER). Subcellular fractionation is consistent with this localization and establishes that PTP-1B is tightly associated with microsomal membranes, with its phosphatase domain oriented towards the cytoplasm. The finding of a tyrosine phosphatase on the ER suggests new possibilities for cellular events controlled by tyrosine phosphorylation (2). It has also been shown that PTP1B is a novel substrate for Akt and that phosphorylation of PTP1B by Akt at Ser(50) may negatively modulate its phosphatase activity creating a positive feedback mechanism for insulin signaling (3).

Synonyms:

PTP1B

Note:

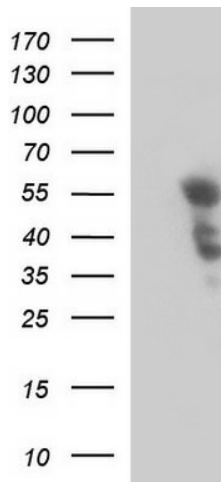
This antibody was generated by SDIX's Genomic Antibody Technology® (GAT). [Learn about GAT](#)

Protein Families:

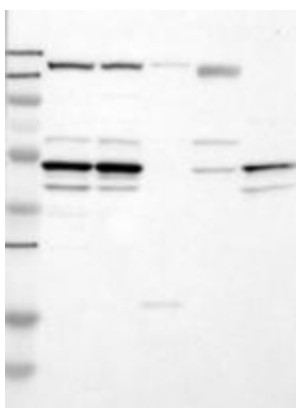
Druggable Genome, Phosphatase, Transmembrane

Protein Pathways:

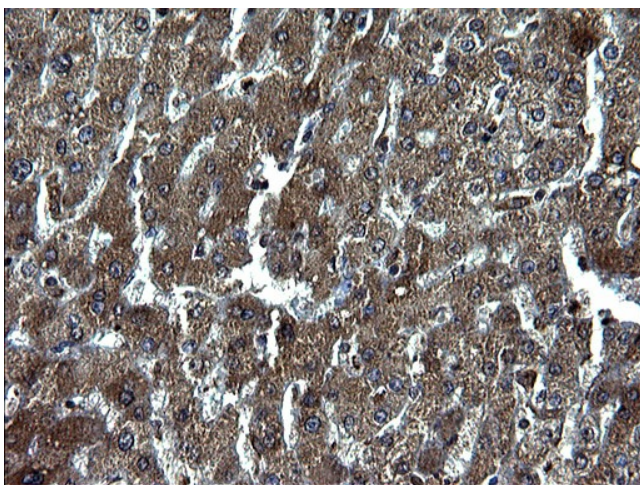
Adherens junction, Insulin signaling pathway

Product images:

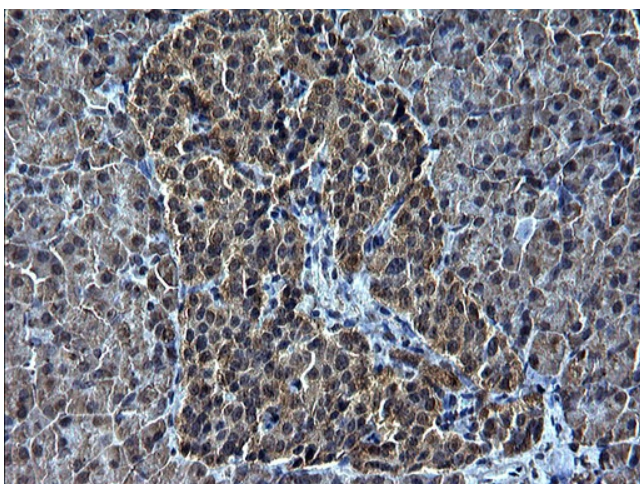
HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY PTPN1 ([RC204902], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PTPN1. Positive lysates [LY419087] (100ug) and [LC419087] (20ug) can be purchased separately from OriGene.



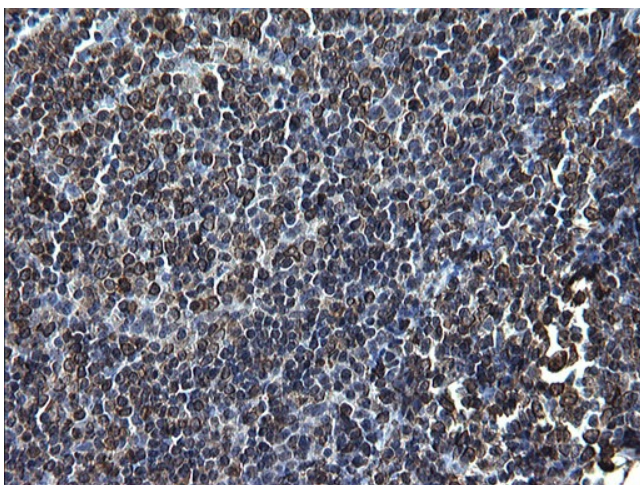
Western Blot: - Samples: Lane 1, Marker: 250, 130, 95, 72, 55, 36, 28, 17, 11 Lane 2, RT-4 Lane 3, U-251MG sp Lane 4, Human Plasma Lane 5, Liver Lane 6, Tonsil, Target weight 50 kDa.



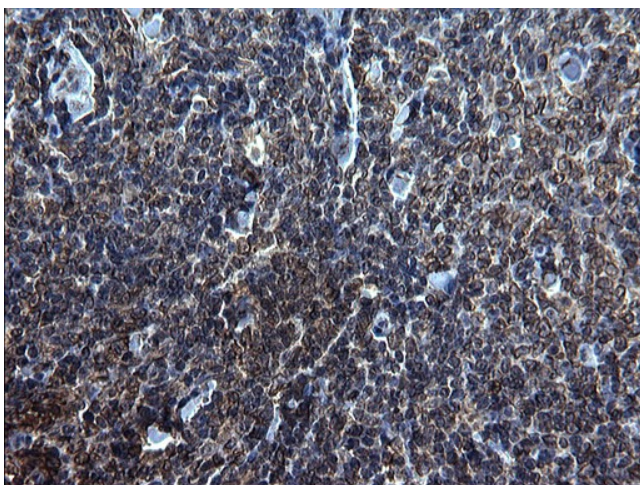
Immunohistochemical staining of paraffin-embedded Human liver tissue using anti-PTPN1 Rabbit Polyclonal antibody. (TA590672)



Immunohistochemical staining of paraffin-embedded Human pancreas tissue using anti-PTPN1 Rabbit Polyclonal antibody. (TA590672)



Immunohistochemical staining of paraffin-embedded Human lymph node tissue using anti-PTPN1 Rabbit Polyclonal antibody. (TA590672)



Immunohistochemical staining of paraffin-embedded Human lymphoma tissue using anti-PTPN1 Rabbit Polyclonal antibody. (TA590672)