

PTP1B Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8411E**Specification**

PTP1B Antibody - Product Information

Application	WB,E
Primary Accession	P18031
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	49967

PTP1B Antibody - Additional Information**Gene ID** 5770**Other Names**

Tyrosine-protein phosphatase non-receptor type 1, Protein-tyrosine phosphatase 1B, PTP-1B, PTPN1, PTP1B

Target/Specificity

This PTP1B antibody is generated from rabbits immunized with a recombinant protein encoding aa 1~321 of human PTP1B.

Dilution

WB~~1:1000

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

PTP1B Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

PTP1B Antibody - Protein Information**Name** PTPN1**Synonyms** PTP1B**Function** Tyrosine-protein phosphatase which acts as a regulator of endoplasmic reticulum

unfolded protein response. Mediates dephosphorylation of EIF2AK3/PERK; inactivating the protein kinase activity of EIF2AK3/PERK. May play an important role in CKII- and p60c- src-induced signal transduction cascades. May regulate the EFNA5-EPHA3 signaling pathway which modulates cell reorganization and cell-cell repulsion. May also regulate the hepatocyte growth factor receptor signaling pathway through dephosphorylation of MET.

Cellular Location

Endoplasmic reticulum membrane; Peripheral membrane protein; Cytoplasmic side Note=Interacts with EPHA3 at the cell membrane

Tissue Location

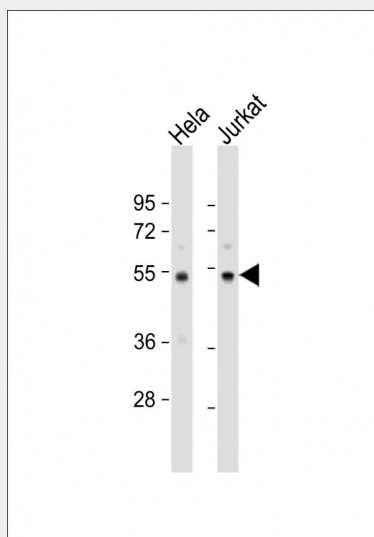
Expressed in keratinocytes (at protein level).

PTP1B Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

PTP1B Antibody - Images



All lanes : Anti-PTP1B/1-321 Antibody at 1:1000 dilution Lane 1: HeLa whole cell lysate Lane 2: Jurkat whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 50 kDa Blocking/Dilution buffer: 5% NFD/MTBST.

PTP1B Antibody - Background

PTP1B is the founding member of the protein tyrosine phosphatase (PTP) family, which was isolated and identified based on its enzymatic activity and amino acid sequence. PTPs catalyze the

hydrolysis of the phosphate monoesters specifically on tyrosine residues. 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. This PTP has been shown to act as a negative regulator of insulin signaling by dephosphorylating the phosphotyrosine residues of insulin receptor kinase. This PTP was also reported to dephosphorylate epidermal growth factor receptor kinase, as well as JAK2 and TYK2 kinases, which implicated the role of this PTP in cell growth control, and cell response to interferon stimulation.

PTP1B Antibody - References

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Sun, J.P., et al., J. Biol. Chem. 278(14):12406-12414 (2003).
Boute, N., et al., EMBO Rep. 4(3):313-319 (2003).
Li, S., et al., Arch. Biochem. Biophys. 410(2):269-279 (2003).
Yigzaw, Y., et al., J. Biol. Chem. 278(1):284-288 (2003).