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PTP1B Antibody (N-terminal)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP8411C

Specification

PTP1B Antibody (N-terminal) - Product Information

Application	**WB,E**
Primary Accession	P18031
Other Accession	P20417, P35821, NP_002818
Reactivity	**Human**
Predicted	**Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**23-53**

PTP1B Antibody (N-terminal) - 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 KLH conjugated synthetic peptide between 23-53 amino acids from the N-terminal region 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 (N-terminal) is for research use only and not for use in diagnostic or therapeutic procedures.

PTP1B Antibody (N-terminal) - 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

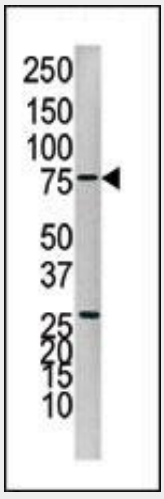
Tissue Location
Expressed in keratinocytes (at protein level).

PTP1B Antibody (N-terminal) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

PTP1B Antibody (N-terminal) - Images



Western blot analysis of anti-PTP1B Pab (Cat. #AP8411c) in Jurkat cell line lysate.PTP1B(arrow) was detected using the purified Pab.

PTP1B Antibody (N-terminal) - 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 phosphotryosine 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 (N-terminal) - References

Xu, J., et al., Biochem. Biophys. Res. Commun. 329(2):538-543 (2005).
Palmer, N.D., et al., Diabetes 53(11):3013-3019 (2004).
Bento, J.L., et al., Diabetes 53(11):3007-3012 (2004).
Wiesmann, C., et al., Nat Struct Mol Biol 11(8):730-737 (2004).
Kipfer-Coudreau, S., et al., Diabetologia 47(7):1278-1284 (2004).

PTP1B Antibody (N-terminal) - Citations

- Calpain-mediated degradation of reversibly oxidized protein-tyrosine phosphatase 1B.