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Anti-PTP1B Picoband Antibody

Catalog # ABO12866

Specification

Anti-PTP1B Picoband Antibody - Product Information

Application	**WB**
Primary Accession	P18031
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Tyrosine-protein phosphatase non-receptor type 1(PTPN1) detection. Tested with WB in Human;Mouse;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-PTP1B Picoband Antibody - Additional Information

Gene ID 5770

Other Names
Tyrosine-protein phosphatase non-receptor type 1, 3.1.3.48, Protein-tyrosine phosphatase 1B, PTP-1B, PTPN1, PTP1B

Calculated MW
49967 MW KDa

Application Details
Western blot, 0.1-0.5 µg/ml, Mouse, Rat, Human

Subcellular Localization
Endoplasmic reticulum membrane ; Peripheral membrane protein ; Cytoplasmic side . Interacts with EPHA3 at the cell membrane.

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence at the N-terminus of human PTP1B (4-30aa EKEFEQIDKSGSWAAIYQDIRHEASDF), different from the related mouse sequence by three amino acids, and from the related rat sequence by two amino acids.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins.

Storage	**At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time. Avoid repeated freezing and thawing.**

Anti-PTP1B Picoband 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).

Anti-PTP1B Picoband 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 Cytomety
- Cell Culture

Anti-PTP1B Picoband Antibody - Images

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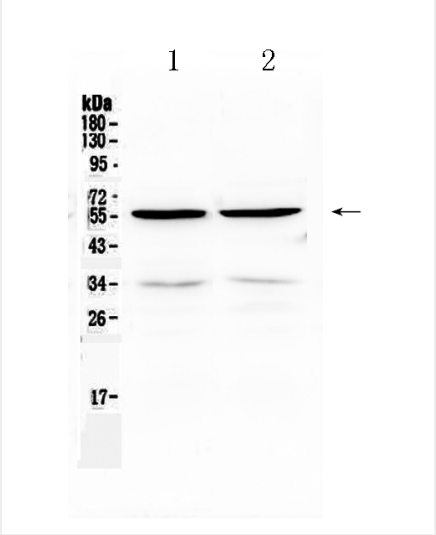

Figure 1. Western blot analysis of PTP1B using anti-PTP1B antibody (ABO12866).

Anti-PTP1B Picoband Antibody - Background

Tyrosine-protein phosphatase non-receptor type 1, also known as protein-tyrosine phosphatase 1B (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.