

**PTP1B Antibody (Clone 107AT531)**  
**Mouse Monoclonal Antibody**  
**Catalog # ABV10098****Specification**

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**PTP1B Antibody (Clone 107AT531) - Product Information**

Application	WB, E
Primary Accession	<a href="#">P18031</a>
Reactivity	Human, Mouse
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse IgG1
Calculated MW	49967

**PTP1B Antibody (Clone 107AT531) - Additional Information****Gene ID** 5770**Application & Usage****The antibody can be used for ELISA (0.25 µg/ml) and Western blotting (0.5 - 2.5 µg/ml).****Other Names**

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

**Target/Specificity**

PTP1B

**Antibody Form**

Liquid

**Appearance**

Colorless liquid

**Formulation**

100 µg (0.25 mg/ml) mouse monoclonal IgG1 antibody supplied in PBS with 0.09% (W/V) sodium azide.

**Handling**

The antibody solution should be gently mixed before use.

**Reconstitution & Storage**

-20 °C

**Background Descriptions****Precautions**

PTP1B Antibody (Clone 107AT531) is for research use only and not for use in diagnostic or therapeutic procedures.

## **PTP1B Antibody (Clone 107AT531) - 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 (Clone 107AT531) - 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 (Clone 107AT531) - Images**

## **PTP1B Antibody (Clone 107AT531) - 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.