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# Anti-PTP1B (Ser-50), Phosphospecific Antibody

Catalog # AN1926

## Product Information

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|---|---|
| **Application** | WB, ICC |
| **Primary Accession** | P18031 |
| **Host** | Rabbit |
| **Clonality** | Rabbit Polyclonal |
| **Isotype** | IgG |
| **Calculated MW** | 49967 |

## Additional Information

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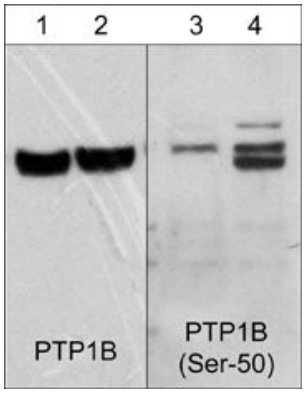
|---|---|
| **Gene ID** | 5770 |
| **Other Names** | PTPN1; TCPTP/PTPN2 |
| **Dilution** | WB~~1:1000 ICC~~N/A |
| **Storage** | Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| **Precautions** | Anti-PTP1B (Ser-50), Phosphospecific Antibody is for research use only and not for use in diagnostic or therapeutic procedures. |
| **Shipping** | Blue Ice |

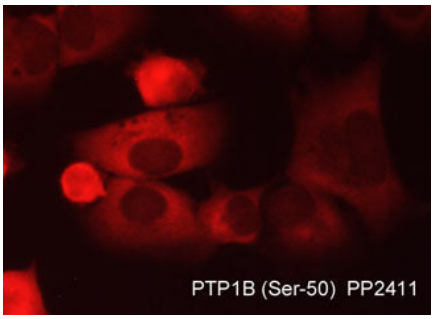
## Background

PTP1B is a nonreceptor type protein tyrosine phosphatase that has essential roles in insulin and leptin signaling, as well as important functions in growth factor and integrin signaling. The structure of PTP1B includes a conserved phosphatase domain, C-terminal hydrophobic residues for targeting to the cytoplasmic face of the endoplasmic reticulum, and proline-rich regions characteristic of SH3 domain binding motifs. PTP1B can interact with N-Cadherin and dephosphorylate β-catenin associated with cadherin complexes. PTP1B also interacts with Insulin and EGF receptors, and undergoes phosphorylation after receptor stimulation. Tyrosine phosphorylation at Tyr-66, Tyr-152, and Tyr-153 occurs after insulin receptor activation, and tyrosine phosphorylation of Tyr-152 may be required for interactions with N-Cadherin. In addition, Akt can phosphorylate Ser-50 and this phosphorylation can reduce PTP1B activity.

## Images

Western blot image of human Jurkat cells untreated (lanes 1 & 3) or treated (lanes 2 & 4) with calyculin A (100 nM for 30 min.). The blots were probed with mouse monoclonal anti-PTP1B (lanes 1 & 2) or rabbit polyclonal anti-PTP1B (Ser-50) (lanes 3 & 4).




Immunocytochemical labeling of PTP1B in aldehyde-fixed and NP-40 permeabilized human NCI-H1915 lung carcinoma cells. The cells were labeled with rabbit polyclonal anti-PTP1B (Ser-50) (AN1926) phosphospecific antibody. The antibody was detected using appropriate secondary antibody conjugated to DyLight® 594.