

# Anti-PTP1B (Tyr-152), Phosphospecific Antibody

Catalog # AN1927

Specification

# Anti-PTP1B (Tyr-152), Phosphospecific Antibody - Product Information

Primary Accession Reactivity Host Clonality Isotype Calculated MW P18031 Bovine Rabbit Rabbit Polyclonal IgG 49967

#### Anti-PTP1B (Tyr-152), Phosphospecific Antibody - Additional Information

Gene ID Other Names PTPN1; TCPTP/PTPN2 5770

Storage Maintain refrigerated at 2-8°C for un

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 (Tyr-152), Phosphospecific Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping Blue Ice

## Anti-PTP1B (Tyr-152), Phosphospecific Antibody - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- <u>Dot Blot</u>
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-PTP1B (Tyr-152), Phosphospecific Antibody - Images





Western blot image of mouse SYF cSrc-transformed cells untreated (lanes 1 & 3) or treated (lanes 2 & 4) with pervanadate (1 mM for 30 min.). The blots were probed with rabbit polyclonal anti-PTP1B (a.a. 146-157) (lanes 1 & 2) or anti-PTP1B (Tyr-152) (lanes 3 & 4).

## Anti-PTP1B (Tyr-152), Phosphospecific Antibody - 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  $\beta$ -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.