

PTP1B (C-terminal region)

Cat. # PM2341

Host Mouse Monoclonal IgG2a

Size 100 µl

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.

References

- Bandyopadhyay, D. et al. (1997) J. Biol. Chem. 272(3):1639.
Rhee, J. et al. (2001) J. Biol. Chem. 276(9):6640.
Lingamanaidu, V. et al. (2001) Molecular Endocrinology 15(10):1768.

Immunogen:

PTP1B recombinant protein corresponding to amino acids in the C-terminal region of human PTP1B.

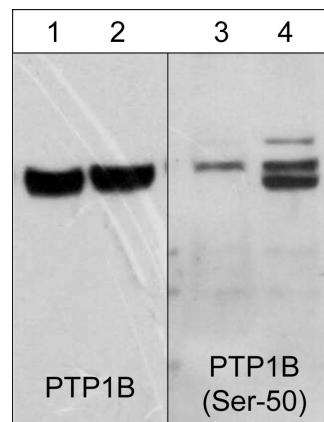
Applications:

WB	1:1000
ELISA	1:2000
ICC	1:100

End user should determine optimal dilution for their particular applications and experiments. Western blot membranes were incubated with diluted antibody in 5% non-fat milk, PBS, 0.04% Tween20 for 1 hour at room temperature.

Related Products:

- PP2351 PTP1B (a.a.146-157) Rabbit Polyclonal
PP2411 PTP1B (Ser-50) Rabbit Polyclonal
PP2391 PTP1B (Tyr-152) Rabbit Polyclonal
SM1601 SHP1 (C-terminal Region) Mouse Monoclonal
SP1531 SHP1 (Ser-591), phospho-specific Rabbit Polyclonal
SP1571 SHP1 (Tyr-536), phospho-specific Rabbit Polyclonal



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).

Buffer and Storage:

Mouse monoclonal antibody purified with protein A chromatography is supplied in 100µl phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at -20°C. Do not aliquot. Stable for 1 year.

Specificity:

This antibody detects a 50 kDa* band corresponding to PTP1B in western blots of human A431, Jurkat, and HeLa cells. It does not detect PTP1B in rat PC12 or mouse SYF cells.

*All molecular weights (MW) are confirmed by comparison to Bio-Rad Rainbow Markers and to western blot mobilities of known proteins with similar MW.

FOR RESEARCH USE ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

www.ecmbiosciences.com
telephone: 859-879-2075
toll-free: 1-800-859-8202
tech: info@ecmbiosciences.com

ECMBiosciences

Rev 7/14/2008