

Product datasheet for **TA389198**

PTPN1 Mouse Antibody [Clone ID: M234]

Product data:

Product Type:	Primary Antibodies
Clone Name:	M234
Applications:	ICC, WB
Recommended Dilution:	WB: 1:1000 ICC: 1:100
Reactivity:	Human
Host:	Mouse
Isotype:	IgG2a
Immunogen:	Clone M234 was generated from a recombinant protein corresponding to amino acids in the C-terminal region of human PTP1B.
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.
Formulation:	PBS + 1 mg/ml BSA, 0.05% NaN ₃ and 50% glycerol
Concentration:	lot specific
Purification:	Protein A Purified
Conjugation:	Unconjugated
Storage:	Storage at -20°C is recommended, as aliquots may be taken without freeze/thawing due to presence of 50% glycerol. Stable for at least 1 year at -20°C.
Stability:	After date of receipt, stable for at least 1 year at -20°C.
Predicted Protein Size:	50
Database Link:	P18031



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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.

Note:

Protein G purified tissue culture supernatant.