

Datasheet for ABIN967772
anti-PTPN1 antibody (AA 269-435)



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Overview

Quantity:	50 µg
Target:	PTPN1
Binding Specificity:	AA 269-435
Reactivity:	Human, Mouse, Rat, Dog, Chicken, Frog
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This PTPN1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Immunoprecipitation (IP)

Product Details

Immunogen:	Human PTP1B aa. 269-435
Clone:	15-PTP1B
Isotype:	IgG2a
Cross-Reactivity:	Dog (Canine), Rat (Rattus), Mouse (Murine), Chicken, Frog
Characteristics:	<ol style="list-style-type: none">1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.2. Please refer to us for technical protocols.3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

Product Details

Purification: The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target: PTPN1

Alternative Name: PTP1B ([PTPN1 Products](#))

Background: PTP1B is a member of the class of enzymes termed protein tyrosine phosphatases (PTPs). This 50 kDa protein contains a conserved phosphatases domain at residues 30-278 and is localized to the cytoplasmic face of the endoplasmic reticulum by its C-terminal 35 residues. Its interactions with other proteins are mediated by proline-rich regions and SH2 compatible sequences. PTP1B is thought to act as a negative regulator in insulin signaling. Insulin stimulation induces its association with the insulin receptor and tyrosine phosphorylation. Its overexpression inhibits proximal and distal insulin signaling events, possibly due to receptor dephosphorylation. Microinjection of PTP1B into *Xenopus* oocytes blocks insulin-induced maturation. Additional studies demonstrate that PTP1B undergoes cell cycle-dependent and/or stress-induced serine phosphorylation. This suggests further regulatory roles that are not yet defined.

Molecular Weight: 50 kDa

Pathways: [TLR Signaling](#), [Response to Growth Hormone Stimulus](#), [ER-Nucleus Signaling](#), [Platelet-derived growth Factor Receptor Signaling](#)

Application Details

Restrictions: For Research Use only

Handling

Format: Liquid

Concentration: 250 µg/mL

Buffer: Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.

Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Handling

Storage: -20 °C

Storage Comment: Store undiluted at -20° C.

Publications

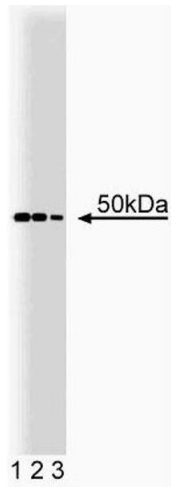
Product cited in: Rutledge, Whiteheart: "SNAP-23 is a target for calpain cleavage in activated platelets." in: **The Journal of biological chemistry**, Vol. 277, Issue 40, pp. 37009-15, (2002) ([PubMed](#)).

Xu, Arregui, Lilien, Balsamo: "PTP1B modulates the association of beta-catenin with N-cadherin through binding to an adjacent and partially overlapping target site." in: **The Journal of biological chemistry**, Vol. 277, Issue 51, pp. 49989-97, (2002) ([PubMed](#)).

Tao, Malbon, Wang: "Galpha(i2) enhances insulin signaling via suppression of protein-tyrosine phosphatase 1B." in: **The Journal of biological chemistry**, Vol. 276, Issue 43, pp. 39705-12, (2001) ([PubMed](#)).

Bharadwaj, Ali, Ovsenek: "Multiple components of the HSP90 chaperone complex function in regulation of heat shock factor 1 In vivo." in: **Molecular and cellular biology**, Vol. 19, Issue 12, pp. 8033-41, (2000) ([PubMed](#)).

Gaits, Li, Bigay, Ragab, Ragab-Thomas, Chap: "G-protein beta gamma subunits mediate specific phosphorylation of the protein-tyrosine phosphatase SH-PTP1 induced by lysophosphatidic acid." in: **The Journal of biological chemistry**, Vol. 271, Issue 33, pp. 20151-5, (1996) ([PubMed](#)).



Western Blotting

Image 1. Western blot analysis of PTP1B on SW13 lysate. Lane 1: 1:2500, lane 2: 1:5000, lane 3: 1: 10000 dilution of PTP1B.

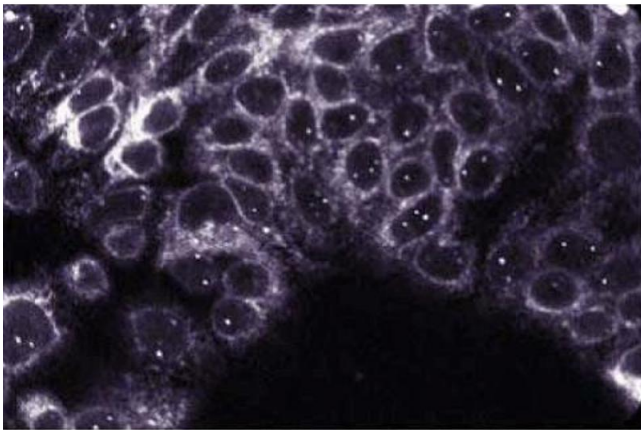


Image 2. HCT-8