

**DESCRIPTION**

<b>Species Reactivity</b>	Mouse/Rat
<b>Specificity</b>	Detects mouse and rat PTP1B in Western blots. In Western blots, less than 1% cross-reactivity with recombinant human PTP1B is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant mouse PTP1B Met1-Phe431 Accession # P35821
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

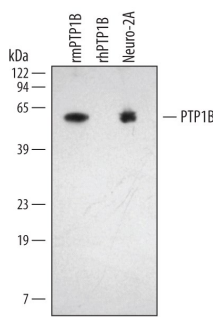
**APPLICATIONS**

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.3 µg/mL	See Below
<b>Simple Western</b>	5 µg/mL	See Below

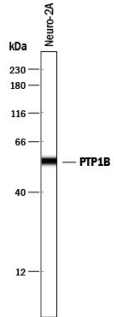
**DATA**

**Western Blot**




**Detection of Mouse/Rat PTP1B by Western Blot.**  
Western blot shows lysates of Neuro-2A mouse neuroblastoma cell line. PVDF membrane was probed with 0.3 µg/mL Goat Anti-Mouse/Rat PTP1B Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3954) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). For additional reference, Recombinant Human PTP1B (Catalog # 1366-PT) and recombinant mouse PTP1B 5 ng/lane were included. A specific band for PTP1B was detected at approximately 50 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

**Simple Western**



**Detection of Mouse PTP1B by Simple Western™.** Simple Western lane view shows lysates of Neuro-2A mouse neuroblastoma cell line, loaded at 0.2 mg/mL. A specific band was detected for PTP1B at approximately 56 kDa (as indicated) using 5 µg/mL of Goat Anti-Mouse/Rat PTP1B Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3954) followed by 1:50 dilution of HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**BACKGROUND**

Protein tyrosine phosphatase 1B (PTP1B), also known as protein tyrosine phosphatase, non-receptor type 1 (PTPN1) and placental protein tyrosine phosphatase, dephosphorylates tyrosine residues in proteins. PTP1B is a cytosolic enzyme anchored in the endoplasmic reticulum that plays a critical role in regulating growth factor responsiveness. PTP1B knockout mice show increased resistance to high fat diet-induced obesity and have exaggerated responses to insulin.