Mouse/Rat PTP1B Antibody
Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF3954

**DESCRIPTION**

**Species Reactivity** Mouse/Rat

**Specificity** Detects mouse and rat PTP1B in Western blots. In Western blots, less than 1% cross-reactivity with recombinant human PTP1B is observed.

**Source** Polyclonal Goat IgG

**Purification** Antigen Affinity-purified

**Immunogen** E. coli-derived recombinant mouse PTP1B Met1-Phe431

**Accession #** P35821

**Formulation** Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

**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.

<table>
<thead>
<tr>
<th>Sample</th>
<th>Recommended Concentration</th>
<th>Sample</th>
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<tbody>
<tr>
<td>Western Blot</td>
<td>0.3 μg/mL</td>
<td>See Below</td>
</tr>
<tr>
<td>Simple Western</td>
<td>5 μg/mL</td>
<td>See Below</td>
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**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**

**Reconstitution** Reconstitute at 0.2 mg/mL in sterile PBS.

**Shipping** 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

**Stability & Storage** Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 6 months, -20 to -70 °C under sterile conditions after reconstitution.

**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.