

## DESCRIPTION

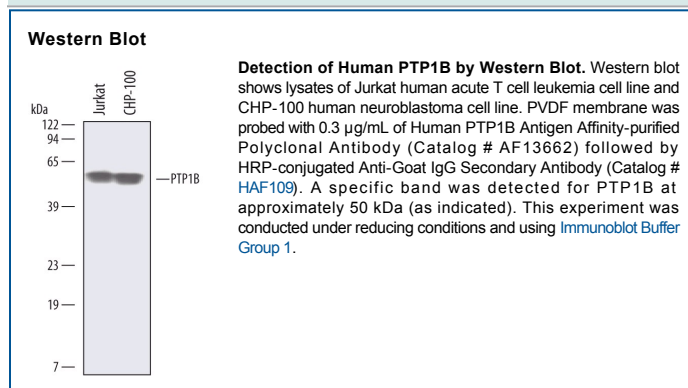
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects endogenous human PTP1B and does not cross-react with recombinant mouse PTP1B in Western blots.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human PTP1B Glu2-Thr435 Accession # P18031
<b>Formulation</b>	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.

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

## DATA



## 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.
<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 from date of receipt, 2 to 8 °C, reconstituted.</li> <li>● 6 months from date of receipt, -20 to -70 °C, reconstituted.</li> </ul>

## BACKGROUND

Protein tyrosine phosphatase 1B (PTP1B) is an enzyme that removes phosphate groups covalently attached to tyrosine residues in proteins. This ubiquitously expressed enzyme is anchored in the endoplasmic reticulum by its C-terminal end and has its catalytic regions exposed to the cytosol. PTP1B will dephosphorylate a wide variety of phosphoproteins, such as receptors for the growth factors insulin and epidermal growth factor (EGF), c-Src and β-catenin. Of particular interest is the observation that PTP1B knock-out mice are resistant to high-caloric intake-induced obesity and have exaggerated insulin responses, suggesting that PTP1B may play an important role in regulating growth factor responsiveness.

### References:

1. Angers-Loustau, *et al.* (1999) *Biochem. Cell Biol.* **77**:493.
2. Sarmiento, *et al.* (1998) *J. Biol. Chem.* **273**:26368.
3. Bjorge, *et al.* (2000) *J. Biol. Chem.* **52**:41439.
4. Balsamo, *et al.* (1996) *J. Cell Biol.* **134**:801.
5. Elchebly, *et al.* (1999) *Science* **283**:1544.