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#5311

PTP1B Antibody

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 50	Source/Isotype: Rabbit	UniProt ID: #P18031	Entrez-Gene Id: 5770
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Product Usage Information

Application

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

PTP1B Antibody detects endogenous levels of total PTP1B protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human PTP1B protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Protein-tyrosine phosphatase 1B (PTP1B) is the original member of the protein tyrosine phosphatase (PTP) family of proteins (1). PTP1B is highly expressed in insulin-responsive tissues and negatively regulates insulin, as well as integrin, through dephosphorylation of phosphotyrosine residues (2-4). PTP1B knockout mice show resistance to dietary weight gain and enhanced insulin sensitivity, suggesting a possible role in treatment of obesity as well as type 2 diabetes (5).

Background References

1. Liang, F. et al. (2005) *J Biol Chem* 280, 24857-63.
2. Kenner, K.A. et al. (1996) *J Biol Chem* 271, 19810-6.
3. Klamann, L.D. et al. (2000) *Mol Cell Biol* 20, 5479-89.
4. Liu, F. et al. (1998) *Curr Biol* 8, 173-6.
5. Elchebly, M. et al. (1999) *Science* 283, 1544-8.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human

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