

PTP1B Antibody (Clone 107AT531)

CATALOG #: 3122-100
AMOUNT: 100 µg
LOT #: _____
HOST (ISOTYPE): Mouse (IgG1)
CLONE: 107AT531
IMMUNOGEN: Recombinant protein encoding amino acids 1-321 of human PTP1B.
SPECIES REACTIVITY: Human, Mouse

FORMULATION:

100 µg (0.25 mg/ml) from mouse ascites with 0.09% (W/V) sodium azide.

STORAGE CONDITIONS:

Maintain refrigerated at 2-8°C for up to 6 months or -20°C for long term storage.

BACKGROUND DESCRIPTION:

PTP1B is the founding member of the protein tyrosine phosphatase (PTP) family, which was isolated and identified based on its enzymatic activity and amino acid sequence. PTPs catalyze the hydrolysis of the phosphate monoesters specifically on tyrosine residues. Members of the PTP family share a highly conserved catalytic motif, which is essential for the catalytic activity. PTPs are known to be signaling molecules that regulate a variety of cellular processes including cell growth, differentiation, mitotic cycle, and oncogenic transformation. This PTP has been shown to act as a negative regulator of insulin signaling by dephosphorylating the phosphotyrosine residues of insulin receptor kinase. This PTP was also reported to dephosphorylate epidermal growth factor receptor kinase, as well as JAK2 and TYK2 kinases, which implicated the role of this PTP in cell growth control, and cell response to interferon stimulation.

BACKGROUND REFERENCES:

1. Ragab, A., et al., J. Biol. Chem. 278(42):40923-40932 (2003).
2. Sun, J.P., et al., J. Biol. Chem. 278(14):12406-12414 (2003).
3. Boute, N., et al., EMBO Rep. 4(3):313-319 (2003).
4. Li, S., et al., Arch. Biochem. Biophys. 410(2):269-279 (2003).
5. Yigzaw, Y., et al., J. Biol. Chem. 278(1):284-288 (2003).

OTHER NAMES:

Tyrosine-protein phosphatase non-receptor type 1; Protein-tyrosine phosphatase 1B; PTP-1B; PTPN1; PTP1B.

SPECIFICITY:

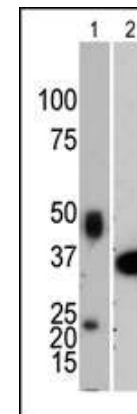
The antibody detects a ~ 50 kDa band, corresponding to the expected molecular mass of PTP1B on immunoblots.

FOR RESEARCH USE ONLY! Not to be used on humans.

APPLICATION (suggested concentration):

The antibody can be used for ELISA (0.25 µg/ml), Western blotting (0.5 – 2.5 µg/ml).

APPLICATION DATA (Calculated MW = 49966 Da):



Western blot analysis of anti-PTP1B antibody (Cat.#3122-100) in mouse lung tissue extract (Lane 1) and recombinant PTP1B protein [1-321] (Lane 2).

RELATED PRODUCTS:

Apoptosis Detection Kits & Reagents

- Annexin V Kits & Bulk Reagents
- Caspase Assay Kits & Reagents
- Mitochondrial Apoptosis Kits & Reagents
- Nuclear Apoptosis Kits & Reagents
- Apoptosis Inducers and Set
- Apoptosis siRNA Vectors

Cell Fractionation System

- Mitochondria/Cytosol Fractionation Kit
- Nuclear/Cytosol Fractionation Kit
- Membrane Protein Extraction Kit
- Cytosol/Particulate Rapid Separation Kit
- Mammalian Cell Extraction Kit
- FractionPREP Fractionation System