

PTB1B, Rabbit pAb

CATALOG #: 3171-100

AMOUNT: 100 µg

LOT #: _____

HOST (ISOTYPE): Rabbit (Ig)

IMMUNOGEN: KLH conjugated synthetic peptide selected from the C-terminal region of human PTP1B.

SPECIES REACTIVITY: Human

FORMULATION:

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, eluted with high and low pH buffers and neutralized immediately, followed by dialysis against PBS.

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:

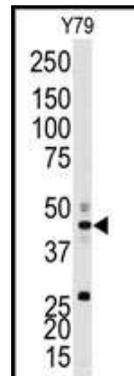
The antibody detects a ~ 50 kDa band, corresponding to the expected molecular mass of PTP1B on immunoblots.

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

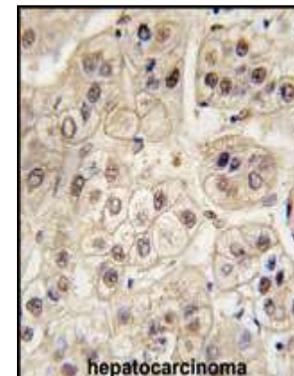
APPLICATION (suggested concentration):

The antibody can be used for ELISA (0.25 µg/ml), Western blotting (0.5 – 2.5 µg/ml), Immunohistochemistry (2.5 – 5 µg/ml).

APPLICATION DATA (Calculated MW = 49966 Da):



Western blot analysis of anti-PTP1B Antibody (Cat.#3127-100) in Y79 cell line lysates (35µg/lane). PTP1B (arrow) was detected using the purified pAb.



Formalin-fixed and paraffin-embedded human hepatocarcinoma tissue reacted with PTP1B antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining.

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