

Product Name: PTP1B (phospho Ser50) Rabbit Polyclonal Antibody
Catalog #: APRab05315

Summary

Production Name	PTP1B (phospho Ser50) Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	ELISA,IHC,WB,
Reactivity	Human,Mouse,Rat,Monkey

Performance

Conjugation	Unconjugated
Modification	Phospho Antibody
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	PTPN1
Alternative Names	PTPN1; PTP1B; Tyrosine-protein phosphatase non-receptor type 1; Protein-tyrosine phosphatase 1B; PTP-1B
Gene ID	5770.0
SwissProt ID	P18031.The antiserum was produced against synthesized peptide derived from human PTP1B around the phosphorylation site of Ser50. AA range:16-65

Application

Dilution Ratio	WB 1:500 - 1:2000 IHC 1:100 - 1:300. ELISA: 1:40000..
Molecular Weight	49kD

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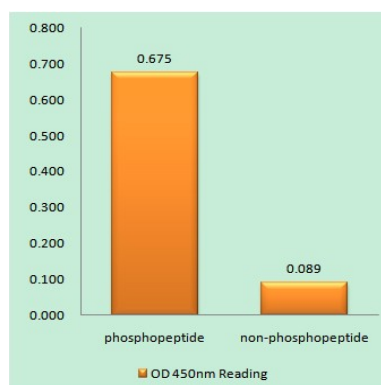
Background

The protein encoded by this gene 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 catalytic activity: Protein tyrosine phosphate + H₂O = protein tyrosine + phosphate. **function:** May play an important role in CKII- and p60c-src-induced signal transduction cascades. **PTM:** Oxidized on Cys-215; the Cys-SOH formed in response to redox signaling reacts with the alpha-amido of the following residue to form a 4-amino-3-isothiazolidinone serine cross-link, triggering a conformational change that inhibits substrate binding and activity. The active site can be restored by reduction. **similarity:** Belongs to the protein-tyrosine phosphatase family. Non-receptor class 1 subfamily. **similarity:** Contains 1 tyrosine-protein phosphatase domain.

Research Area

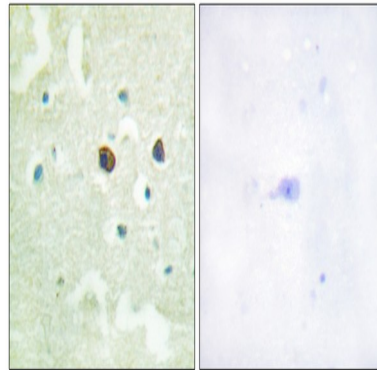
Adherens_Junction; Insulin_Receptor;

Image Data

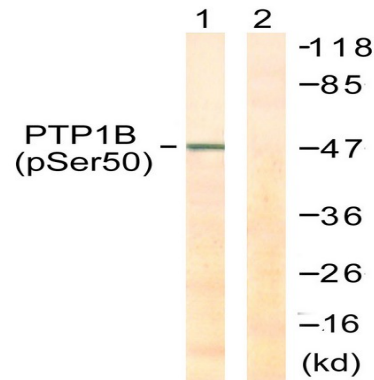


Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using PTP1B (Phospho-Ser50) Antibody

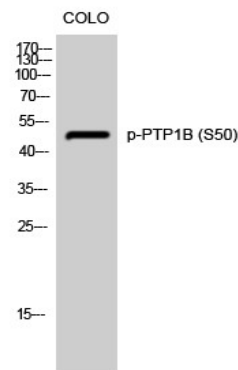
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Immunohistochemistry analysis of paraffin-embedded human brain, using PTP1B (Phospho-Ser50) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from COS7 cells treated with UV 30', using PTP1B (Phospho-Ser50) Antibody. The lane on the right is blocked with the phospho peptide.



Western Blot analysis of COLO cells using Phospho-PTP1B (S50) Polyclonal Antibody diluted at 1: 500

Note

For research use only.