



PTP1B (phospho Ser50) Polyclonal Antibody

Catalog No	YP-Ab-14476
Isotype	IgG
Reactivity	Human;Mouse;Rat;Monkey
Applications	WB;IHC;IF;ELISA
Gene Name	PTPN1
Immunogen	The antiserum was produced against synthesized peptide derived from human PTP1B around the phosphorylation site of Ser50. AA range:16-65
Specificity	Phospho-PTP1B (S50) Polyclonal Antibody detects endogenous levels of PTP1B protein only when phosphorylated at S50.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB: 1/500 - 1/2000. IHC: 1/100 - 1/300. ELISA: 1/40000.. IF 1:50-200
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	PTP1B;PTPN1;EC:3.1.3.48;Protein-tyrosine phosphatase 1B;PTP 1B;Tyrosine-protein phosphatase non-receptor type 1;PTP-1B
Observed Band	49kD
Calculated Molecular Weight	49kD
Cell Pathway	Endoplasmic reticulum membrane ; Peripheral membrane protein ; Cytoplasmic side . Interacts with EPHA3 at the cell membrane.
Tissue Specificity	Expressed in keratinocytes (at protein level).
Function	catalytic activity:Protein tyrosine phosphate + H(2)O = 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.,

**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

matters needing attention

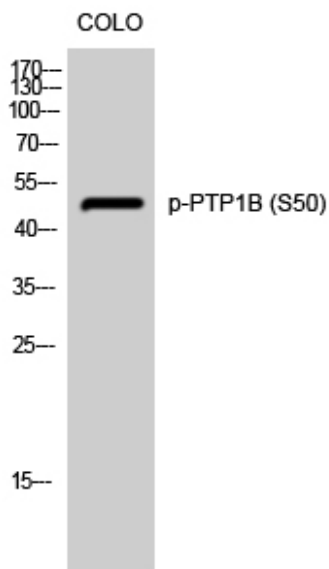
Avoid repeated freezing and thawing!

Usage suggestions

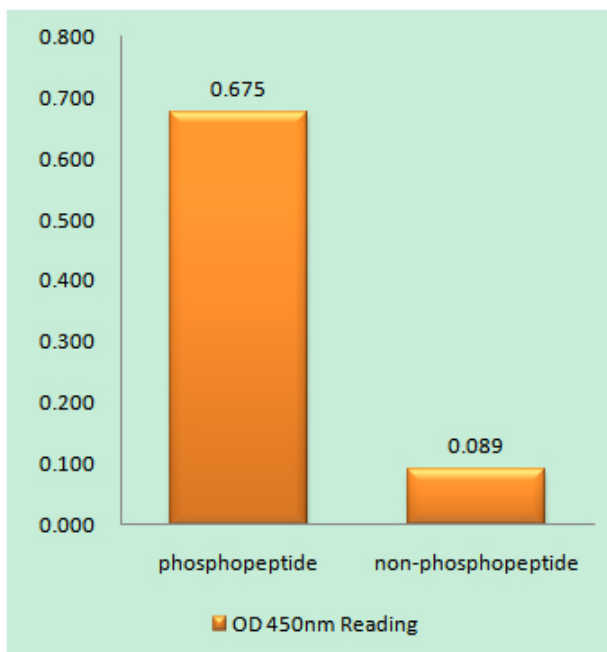
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



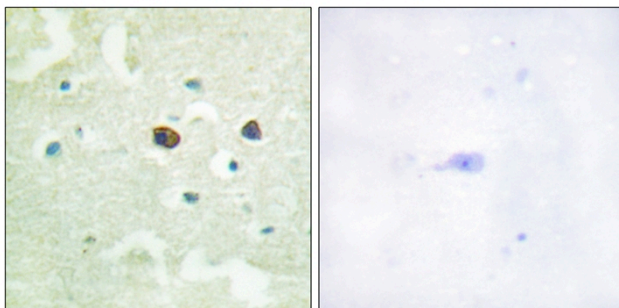
Products Images



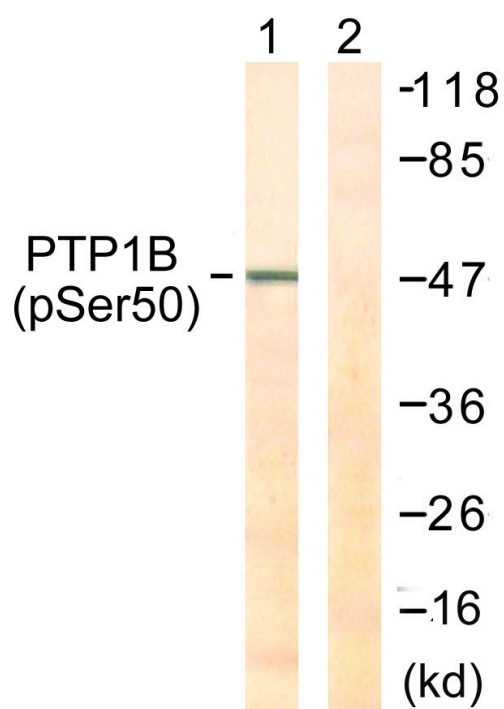
Western Blot analysis of COLO cells using Phospho-PTP1B (S50) Polyclonal Antibody diluted at 1:500



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



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



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.