Best Tools for immunology Research

PTP1B Polyclonal Antibody

Catalog No :	YT3900
Reactivity :	Human;Mouse;Rat;Monkey
Applications :	WB;IHC;IF;ELISA
Target :	PTP1B
Fields :	>>Adherens junction;>>Insulin signaling pathway;>>Insulin resistance;>>Chemical carcinogenesis - reactive oxygen species
Gene Name :	PTPN1
Protein Name :	Tyrosine-protein phosphatase non-receptor type 1
Human Gene Id :	5770
Human Swiss Prot No :	P18031
Mouse Gene Id :	19246
Mouse Swiss Prot No :	P35821
Rat Gene Id :	24697
Rat Swiss Prot No :	P20417
Immunogen :	The antiserum was produced against synthesized peptide derived from human PTP1B. AA range:16-65
Specificity :	PTP1B Polyclonal Antibody detects endogenous levels of PTP1B protein.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Polyclonal, Rabbit,IgG
Dilution :	WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:20000.. IF 1:50-200

Purification : The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

Concentration : 1 mg/ml

Storage Stability : -15°C to -25°C/1 year(Do not lower than -25°C)

Observed Band : 49kD

Cell Pathway : Adherens_Junction;Insulin_Receptor;

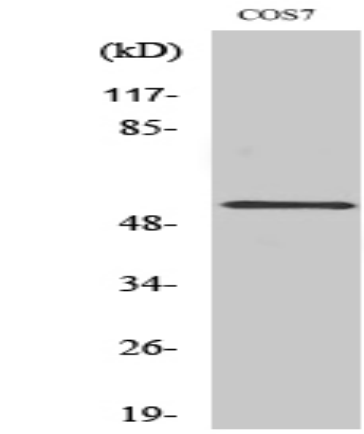
Background : The protein encoded by this gene is the founding member of the protein tyrosine phosphatase (PTP) family, which was isolated and identified based on its enzymatic activity and amino acid sequence. PTPs catalyze the hydrolysis of the phosphate monoesters specifically on tyrosine residues. 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 phosphotryosine 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

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.,

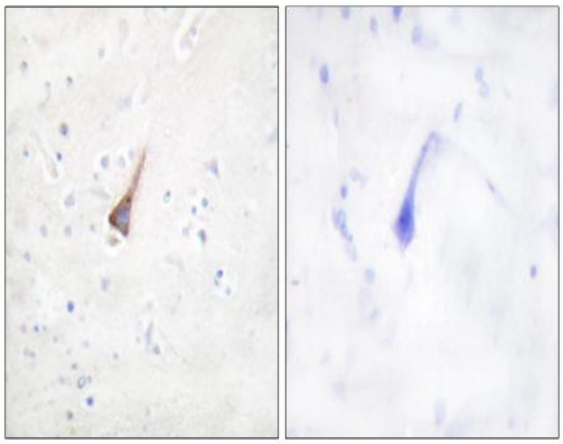
Subcellular Location : Endoplasmic reticulum membrane ; Peripheral membrane protein ; Cytoplasmic side . Interacts with EPHA3 at the cell membrane.

Expression : Expressed in keratinocytes (at protein level).

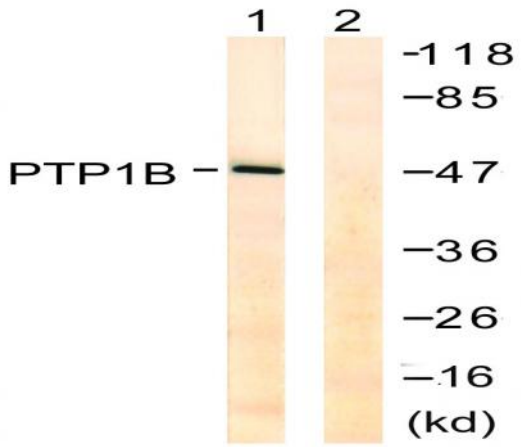
Products Images



Western Blot analysis of various cells using PTP1B Polyclonal Antibody diluted at 1:500



Immunohistochemistry analysis of paraffin-embedded human brain tissue, using PTP1B Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from COS7 cells, treated with UV 30', using PTP1B Antibody. The lane on the right is blocked with the synthesized peptide.