Immunotag™ PTP1B (phospho Ser50) Polyclonal Antibody

Antibody Specification

Catalog No.	ITP0722
Product Description	Immunotag™ PTP1B (phospho Ser50) Polyclonal Antibody
Size	50 µg, 100 µg
Conjugation	HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647
IMPORTANT NOTE	This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return.
Target Protein	PTP1B (Ser50)
Clonality	Polyclonal
Storage/Stability	-20°C/1 year
Application	WB,IHC-p,ELISA
Recommended Dilution	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/40000. Not yet tested in other applications.
Concentration	1 mg/ml
Reactive Species	Human,Mouse,Rat,Monkey
Host Species	Rabbit
Immunogen	Synthesized phospho-peptide around the phosphorylation site of human PTP1B (phospho Ser50)
Specificity	Phospho-PTP1B (S50) Polyclonal Antibody detects endogenous levels of PTP1B protein only when phosphorylated at S50.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen
Form	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Gene Name	PTPN1
Accession No.	P18031 P35821 P20417
Alternate Names	PTPN1; PTP1B; Tyrosine-protein phosphatase non-receptor type 1; Protein-tyrosine phosphatase 1B; PTP-1B

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Description	protein tyrosine phosphatase, non-receptor type 1(PTPN1) Homo sapiens 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
Cell Pathway/ Category	Adherens_Junction,Insulin_Receptor,
Protein Expression	Epithelium,Eye,Lymph,Placenta,Tongue,Whole embryo,
Subcellular Localization	early endosome,endoplasmic reticulum,cytosol,plasma membrane,cell-cell adherens junction,integral component of membrane,cytoplasmic vesicle,sorting endosome,cytoplasmic side of endoplasmic reticulum membrane,
Protein 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.,
Usage	For Research Use Only! Not for diagnostic or therapeutic procedures.