

Recombinant Human PTPN1

Cat. No. PTPN1-537H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human protein tyrosine phosphatase, non-receptor type 1 was expressed in <i>E.coli</i> and it was purified by conventional column chromatographic techniques. MW = 37.3 kDa (321 aa).
Species	Human
Source	E.coli
Description	The protein coding region of the catalytic domain of PTP-1B (amino acids 1-321) was cloned into an E. coli expression vector. 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.
Form	Liquid. In 25 mM Tris-HCl buffer (pH 7.5) containing 1 mM DTT 2 mM β-mercaptoethanol, 1 mM EDTA, 20%Glycerol.
Purity	> 95% by SDS - PAGE.
Concentration	1 mg/ml (determined by Bradford assay).
Sequences Of Amino Acids	MEMEKEFEQI DKSGSWAAIY QDIRHEASDF PCRVAKLPKN KNRNRYRDVS PF D HSRIKLH QEDNDYINAS LIKMEEAQRS YILTQGPLPNTCGHFWEMVW EQKS R G V VML NRVMEKGSLK CAQYWPQKEE KEMIFEDTNL KLTLISEDIK SYYT VRQLEL

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ENLTTQETREILHFHYTTWPDFGVESPAS FLNFLFKVRE SGS LSPE HGPV VV H
CSAGIG RSGTFCLADT CLLMDKRKD PSSVDIKKVLEMRKFRMGLIQTADQL RFS
YLAVIEGAKF IMGDSSVQDQ WKELSHEDLE PPPEHIPPPP RPP KR IL E PH N .

Specific Activity 10,000units/mg of PTP1B.

Unit Definition One unit will hydrolyze 1nanomole of p-nitrophenyl phosphatate per minute at pH 7.4 at 37°C using 10mM of substrate.

Storage Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

GENE INFORMATION

Gene Name [PTPN1 protein tyrosine phosphatase, non-receptor type 1 \[Homo sapiens \]](#)

Synonyms PTPN1; protein tyrosine phosphatase, non-receptor type 1; Tyrosine-protein phosphatase non-receptor type 1; EC 3.1.3.48; Protein-tyrosine phosphatase 1B; PTP-1B; PTP1B; OTTHUMP00000031266; protein tyrosine phosphatase 1B; Protein-tyrosine phosphatase 1B; protein tyrosine phosphatase, placental

Gene ID [5770](#)

mRNA Refseq [NM_002827](#)

Protein Refseq [NP_002818](#)

MIM [176885](#)

UniProt ID P18031

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Chromosome Location	20q13.1-q13.2
Pathway	Adherens junction; Insulin signaling pathway; Hemostasis; Integrin cell surface interactions
Function	hydrolase activity; insulin receptor binding; protein binding; protein tyrosine phosphatase activity; zinc ion binding
PDB rendering based on 1a5y.	