



## Product Datasheet

<b>Product Name</b>	Protein Tyrosine Phosphatase Non Receptor Type-1 Human Recombinant
<b>Cata No</b>	CB500826
<b>Source</b>	<i>Escherichia Coli.</i>
<b>Synonyms</b>	Tyrosine-protein phosphatase non-receptor type 1, EC 3.1.3.48, Protein-tyrosine phosphatase 1B, PTP-1B, PTPN1, PTP1B.

### Description

Protein Tyrosine Phosphatase 1B 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 this PTP in cell growth control, and cell response to interferon stimulation.

Protein Tyrosine Phosphatase Non Receptor Type-1 Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 321 amino acids and having a molecular mass of 37.3 kDa.

### Physical Appearance

Sterile filtered colorless solution.

### Purity

Greater than 95.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

### Formulation

The protein contains 25mM Tris-HCl, pH 7.5, 2mM b-mercaptoethanol, 1mM EDTA, 1mMDTT and 20% Glycerol.

### Stability

Store at 4°C if entire vial will be used within 2-4 weeks.

Store, frozen at -20°C for longer periods of time.

For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

**Avoid multiple freeze-thaw cycles.**

### Sequence

memekefeqi dksgswaaiy qdirheasdf pcrvaklpkn  
knrnrirdvs pfdhsrikhqedndyinas likmeeaqrs  
yiltqgplpn tcghfwemvw eqksrgvvmi  
nrvmekgslkcaqywpqkee kemifedtnl kltlisedik  
syytvrqlle enlttqetre ilhfhyttwdfgvpespas flnflkvre  
sgslspehgp vvhcsagig rsgtfcladt  
clllmdkrkdpsvdikkvl lemkrfrmgl iqtadqlrfs ylaviegakf  
imgdssvqdq wkelshedle pppehippprppkrilephn.