

## Product datasheet for PH304902

### PTP1B (PTPN1) (NM\_002827) Human Mass Spec Standard

#### Product data:

Product Type:	Mass Spec Standards
Description:	PTPN1 MS Standard C13 and N15-labeled recombinant protein (NP_002818)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC204902
Predicted MW:	50 kDa
Protein Sequence:	>RC204902 protein sequence Red=Cloning site Green=Tags(s)

MEMEKEFEQIDKSGSWAAIYQDIRHEASDFPCRVAKLPKNKNRNRVYRDVSPFDHSRIKLNHEDNDYINAS  
LIKMEEAQRSYILTQGPLPNTCGHFWEMVWEQKSRGVVMLNRVMEKGSCLKAQYWPQKEEKEMIFEDTNL  
KLTLISEDIKSYTYRQLELENLTTQETREILHFHYTTWPDFGVPESPASFLNLFKRVRESGSLSPHEGP  
VVVHCSAGIGRSGTFCLADTCLLLMDKRPSSVDIKKVLLEMRKFRMGLIQTADQLRFSYLAVIEGAKF  
IMGDSSVQDQWKELSHEDLEPPPEHI PPPPPPKRILEPHNGKCREFFPNHQWVKEETQEDKDCPIKEEK  
GSPLNAAPYGIEMSQDTEVRSRVVGGSLRGAQAASPAKGEPSLPEKDEDHALSYWKPFVNMCVATVLT  
AGAYLCYRFLFNSNT

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Tag:	C-Myc/DDK
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Labeling Method:	Labeled with [U- <sup>13</sup> C <sub>6</sub> , <sup>15</sup> N <sub>4</sub> ]-L-Arginine and [U- <sup>13</sup> C <sub>6</sub> , <sup>15</sup> N <sub>2</sub> ]-L-Lysine
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3
Storage:	Store at -80°C. Avoid repeated freeze-thaw cycles.
Stability:	Stable for 3 months from receipt of products under proper storage and handling conditions.
RefSeq:	<u>NP_002818</u>
RefSeq Size:	3573
RefSeq ORF:	1305
Synonyms:	PTP1B



[View online »](#)

Locus ID: 5770

UniProt ID: [P18031](#), [A8K3M3](#)

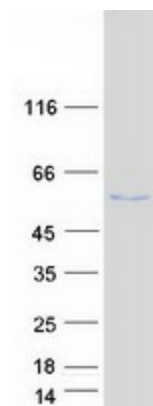
Cytogenetics: 20q13.13

**Summary:** 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 this PTP in cell growth control, and cell response to interferon stimulation. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2013]

**Protein Families:** Druggable Genome, Phosphatase, Transmembrane

**Protein Pathways:** Adherens junction, Insulin signaling pathway

### Product images:



Coomassie blue staining of purified PTPN1 protein (Cat# [TP304902]). The protein was produced from HEK293T cells transfected with PTPN1 cDNA clone (Cat# [RC204902]) using MegaTran 2.0 (Cat# [TT210002]).