# Recombinant Full Length Human PTPN1 Protein, C-Flag-tagged

**Cat. No.** PTPN1-670HFL **Lot. No.** (See product label)

## SPECIFICATION

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| **Product Overview** | Recombinant Full Length Human PTPN1 Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells. |
| **Species** | Human |
| **Source** | Mammalian Cells |
| **Description** | 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 this PTP in cell growth control, and cell response to interferon stimulation. Two transcript variants encoding different isoforms have been found for this gene. |
| **Form** | 25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol. |

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| **Molecular Mass** | 67.8 kDa |
| **AA Sequence** | MTSRRWFHPNITGVEAENLLLTRGVDGSFLARPSKSNPGDFTLSVRRNGAVTHIKIQ NTGDYYDLYGGEK FATLAELVQYYMEHHGQLKEKNGDVIELKYPLNCADPTSERW FHGHLSGKEAEKLLTEKGKHGSFLVRES QSHPGDFVLSVRTGDDKGESNDGKSKV THVMIRCQELKYDVGGGERFDSLTDLVEHYKKNPMVETLGTVL QLKQPLNTTRINA AEIESRVRELSKLAETTDKVKQGFWEEFETLQQQECKLLYSRKEGQRQENKNKNRY K NILPFDHTRVVLHDGDPNEPVSDYINANIIMPEFETKCNNSKPKKSYIATQGCLQNT VNDFWRMVFQENS RVIVMTTKEVERGKSKCVKYWPDEYALKEYGVMRVRNVKES AAHDYTLRELKLSKVGQGNTERTVWQYHF RTWPDHGVPSDPGGVLDFLEEVHHK QESIMDAGPVVVHCSAGIGRTGTFIVIDILIDIIREKGVDCDIDV PKTIQMVRSQRSGM VQTEAQYRFIYMAVQHYIETLQRRIEEEQKSKRKGHEYTNIKYSLADQTSGDQSPL PPCTPTPPCAEMREDSARVYENVGLMQQQKSFRTRTRPLEQKLISEEDLAANDILDY KDDDDKV |
| **Purity** | > 80% as determined by SDS-PAGE and Coomassie blue staining. |
| **Stability** | Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles. |
| **Storage** | Store at -80 centigrade. |
| **Concentration** | >50 ug/mL as determined by microplate BCA method. |
| **Preparation** | Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps. |
| **Protein Families** | Druggable Genome, Phosphatase |
| **Protein Pathways** | Adipocytokine signaling pathway, Chronic myeloid leukemia, Epithelial cell signaling |

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| | in Helicobacter pylori infection, Jak-STAT signaling pathway, Leukocyte transendothelial migration, Natural killer cell mediated cytotoxicity, Neurotrophin signaling pathway, Renal cell carcinoma |
| **Full Length** | Full L. |

## GENE INFORMATION

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|---|---|
| **Gene Name** | PTPN1 protein tyrosine phosphatase non-receptor type 1 [ Homo sapiens (human) ] |
| **Official Symbol** | PTPN1 |
| **Synonyms** | PTP1B |
| **Gene ID** | 5770 |
| **mRNA Refseq** | NM_002827.4 |
| **Protein Refseq** | NP_002818.1 |
| **MIM** | 176885 |
| **UniProt ID** | Q06124 |

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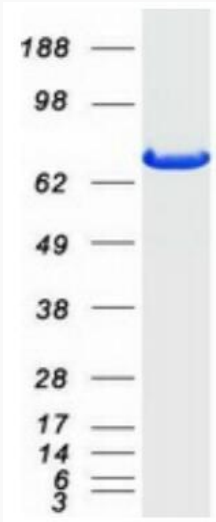


Coomassie blue staining of purified PTPN11 protein.

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