

Product datasheet for **RG204902**

PTP1B (PTPN1) (NM_002827) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PTP1B (PTPN1) (NM_002827) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PTP1B
Synonyms:	PTP1B
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG204902 representing NM_002827 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAGATGGAAAAGGAGTTCGAGCAGATCGACAAGTCCGGGAGCTGGCGGCCATTTACCAGGATATCC
GACATGAAGCCAGTGACTTCCCATGTAGAGTGGCCAAGCTTCTAAGAACAAAACCGAAATAGGTACAG
AGACGTCACTCCCTTTGACCATAGTCGGATTAACACTACATCAAGAAGATAATGACTATATCAACGCTAGT
TTGATAAAAATGGAAGAAGCCCAAAGGAGTTACATTCTTACCCAGGGCCCTTTGCCTAACACATGCGGTC
ACTTTTGGGAGATGGTGTGGGAGCAGAAAAGCAGGGGTGTCGTCATGCTCAACAGAGTGATGGAGAAAGG
TTCGTTAAAATGCGCACAACTACTGGCCACAAAAAGAAAAGAGATGATCTTTGAAGACAAAATTTG
AAATTAACATTGATCTCTGAAGATATCAAGTCATATTATACAGTGCACAGCTAGAATTGAAAAACCTTA
CAACCCAGAAAACCTCGAGAGATCTTACATTTCCACTATACCACATGGCCTGACTTTGGAGTCCCTGAATC
ACCAGCCTCATTCTTGAACCTTTCTTTCAAAGTCCGAGAGTCAGGGTCACTCAGCCCGGAGCACGGGCC
GTTGTGGTGCAGTGCAGTGCAGGCATCGGCAGGTCTGGAACCTTCTGTCTGGCTGATACCTGCCTTTGC
TGATGGACAAGAGGAAAGACCCTTCTCCGTTGATATCAAGAAAGTGCTGTTAGAATGAGGAAGTTTCG
GATGGGGCTGATCCAGACAGCCAGCAGCTGCGCTTCTCTACCTGGCTGTGATCGAAGGTGCCAAATTC
ATCATGGGGGACTTCCGTCAGGATCAGTGGAAAGAGCTTTCCACGAGGACCTGGAGCCCCACCCG
AGCATATCCCCACCTCCCGGCCACCCAAACGAATCCTGGAGCCACACAATGGGAAATGCAGGGAGTT
CTTCCCAATCACCAGTGGTGAAGGAAGAGACCCAGGAGGATAAAGACTGCCCATCAAGGAAGAAAAA
GGAAGCCCTTAAATGCCGACCCTACGGCATCGAAAGCATGAGTCAAGACACTGAAGTTAGAAGTCGGG
TCGTGGGGGAAGTCTTCGAGGTGCCAGGCTGCCTCCCGCCAAAGGGGAGCCGTCAGTCCCGAGAA
GGACGAGGACCATGCACTGAGTTACTGGAAGCCCTTCTGGTCAACATGTGCGTGGCTACGGTCTCACG
GCCGGCGTTACCTCTGTACAGGTTCTGTTCAACAGCAACACA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_002827.4](#)

RefSeq Size: 3318 bp

RefSeq ORF: 1308 bp

Locus ID: 5770

UniProt ID: [P18031](#)

Cytogenetics: 20q13.13

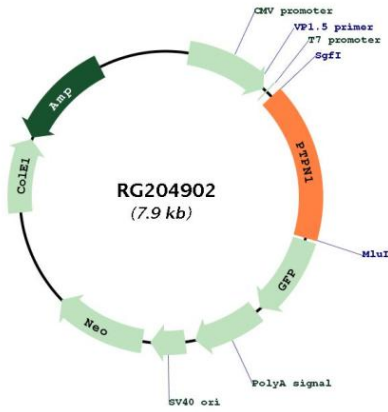
Domains: Y_phosphatase, PTPc_motif

Protein Families: Druggable Genome, Phosphatase, Transmembrane

Protein Pathways: Adherens junction, Insulin signaling pathway

Gene 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]

Product images:



Circular map for RG204902