

## Product datasheet for RC204902L2V

## OriGene Technologies, Inc.

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## PTP1B (PTPN1) (NM\_002827) Human Tagged ORF Clone Lentiviral Particle

**Product data:** 

**Product Type:** Lentiviral Particles

Product Name: PTP1B (PTPN1) (NM 002827) Human Tagged ORF Clone Lentiviral Particle

Symbol: PTP1B
Synonyms: PTP1B

Mammalian Cell

Selection:

None

**Vector:** pLenti-C-mGFP (PS100071)

Tag: mGFP

**ACCN:** NM\_002827 **ORF Size:** 1305 bp

**ORF Nucleotide** 

The ORF insert of this clone is exactly the same as(RC204902).

Sequence:

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This

naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing

variants is recommended prior to use. More info

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression

varies depending on the nature of the gene.

**RefSeg:** NM 002827.2

 RefSeq Size:
 3573 bp

 RefSeq ORF:
 1308 bp

 Locus ID:
 5770

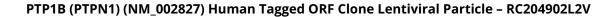
 UniProt ID:
 P18031

 Cytogenetics:
 20q13.13

**Domains:** Y\_phosphatase, PTPc\_motif

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





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

**MW:** 50 kDa

**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 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. [provided by RefSeq, Jul 2013]