

## Product datasheet for **RC220230**

### **PTPRN (NM\_002846) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	PTPRN (NM_002846) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PTPRN
Synonyms:	IA-2; IA-2/PTP; IA2; ICA512; R-PTP-N
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide  
Sequence:

>RC220230 representing NM\_002846  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCCGCATCGCC

ATGCGGCGCCCGGGCGGCTGGGGTCTCGGGGATCCGGGGTCTCCGGCTGCTCCTCTGCCTCTGCT  
 TGCTGAGCAGCCCGGGGGCTGACGCGCGTTAGTGCCACGGCTGTCTATTTGACCGCAGGCTCTG  
 CTCTCACCTGGAAGTCTGTATTACAGGATGGCTTGTGGGCAAGTGGGAGTGGGCGAGGCCCGG  
 CCCCTTTTGAAGTACCTCCCCAGTTCTCCAACGCTTACAAGGTGTGCTCCGACAACTCATGTCCCAAG  
 GATTGTCTGGCAGATGACCTCACCCAGTATGTGATCTCTCAGGAGATGGAGCGCATCCCAGGCTTCG  
 CCCCCAGAGCCCGTCCAAGGGACAGGCTGGCTTGGCACCAAGAGACCTGGTCTGCTGGAGAGCTG  
 CTTTTACAGGACATCCCCACTGGCTCCGCCCTGCTGCCAGCATCGGCTCCACAACCACAGTGGGCA  
 AAGGTGGAGCTGGGGCCAGCTCCTCTGTCCCCTCTGCAGGCTGAGCTGCTCCGCCTCTCTTGAGCA  
 CCTGCTGCTGCCCCACAGCCTCCCACCCTTCACTGAGTTACGAACCTGCCTTGTGACGCCCTACCTG  
 TTCCACCAAGTTTGGCTCCCGTATGGCTCCAGGCTCTCAGAGGGTCCCCAGGGATGGTCACTGTCGGCC  
 CCCTGCCCAAGGCTGAAGCCCTGCCCTCTCAGCAGAAGTGCCTCCAAGGGCATATTTGGGGACACCC  
 TGGCCACTCTACGGGGACCTTCCAGGGCTTCACTGCCAGCTTTTTCAAGACTCTGGGCTGCTCTAT  
 CTGGCCAGGAGTTGCCAGCACCCAGCAGGGCCAGGGTGCCAAGGCTGCCAGAGCAAGGGAGCAGCAGCC  
 GGGCAGAGGACTCCCCAGAGGGCTATGAGAAGGAAGGACTAGGGGATCGTGGAGAGAAGCCTGCTCCCC  
 AGCTGTGCAGCCAGATGCGGCTCTGCAGAGGCTGGCCGCTGTGCTGGCGGGCTATGGGGTAGAGCTGCGT  
 CAGTGACCCCTGAGCAGCTCTCCACACTCTGACCCTGCTGCAGCTACTGCCAAGGGTGCAGGAAGAA  
 ATCCGGGAGGGTTGTAATGTGGAGCTGATATCAAGAAAACAATGGAGGGGCGGTGGAGGGCAGAGA  
 CACAGCAGAGCTTCCAGCCCGCACATCCCCATGCCTGGACACCCCACTGCCAGCCCTACCTCCAGTGAA  
 GTCCAGCAGGTGCCAAGCCCTGTCTCTGAGCCTCCCAAGGCTGCCAGACCCCTGTGACACCTGTCC  
 TGCTAGAGAAGAAAAGCCCACTGGGCCAGAGCCAGCCACGGTGGCAGGACAGCCCTCAGCCCGCCAGC  
 AGCAGAGGAATATGGCTACATCGTCACTGATCAGAAGCCCTGAGCCTGGCTGCAGGAGTGAAGTGTCTG  
 GAGATCTGGCTGAGCATGTGCACATGTCTCAGGAGCTTCAACATCAGTGTGGTGGGACCAGCCC  
 TCACCTCCGCATCCGGCACAATGAGCAGAACCTGTCTTTGGCTGATGTGACCCAACAAGCAGGGCTGGT  
 GAAGTCTGAAGTGAAGCACAGACAGGGCTCCAAATCTTGACAGCAGGAGTGGGACAGAGGGAGGAGCA  
 GCTGCAGTCTTCCCAAAGTGCACAGCACCTCACCATGCGCTCAGTGTGCTCACTCTGGTGGCCC  
 TGGCAGGTGTGGCTGGGCTGCTGGTGGCTGTGGCTGTGGCTGTGTGTGCGGCAGCATGCGCGGAGCA  
 AGACAAGGAGCGCCTGGCAGCCCTGGGGCTGAGGGGGCCATGGTGACACTACCTTTGAGTACCAGGAC  
 CTGTGCCGCCAGCACATGGCCACGAAGTCTTGTCAACCGGGCAGAGGGTCCACCGGAGCCTTACGGG  
 TGAGCAGTGTGCTCTCCAGTTCAGCGACGCAGCCAGGCCAGCCCAAGCTCCCACAGCAGACCCCGTC  
 CTGGTGCAGGAGCCGGCCCAAGCCAACATGGACATCTCCACGGGACACATGATTCTGGCATAACATGGAG  
 GATCACCTGCGGAACCGGGACCGCTTCCCAAGGAGTGGCAGGCCCTCTGTGCCTACCAAGCAGAGCCAA  
 ACACCTGTGCCACCGCGCAGGGGAGGGCAACATCAAAAAGAACCAGGATCCTGACTTCTGCCCTATGA  
 CCATGCCCGCATAAAAAGTGAAGGTGGAGAGCAGCCCTTCTCGGAGCGATTACATCAACGCCAGCCCAT  
 ATTGAGCATGACCCTCGGATGCCAGCCTACATAGCCACGAGGGCCCGCTGTCCATACCATCGCAGACT  
 TCTGGCAGATGGTGTGGGAGAGCGGCTGCACCGTATCGTCTGCTGACCCCGCTGGTGGAGGATGGTGT  
 CAAGCAGTGTGACCGCTACTGGCCAGATGAGGGTGCCTCCCTTACCACGTATATGAGGTGAACCTGGTG  
 TCGGAGCACATCTGGTGCAGGACTTTCTGGTGCAGGACTTCTACCTGAAGAACGTGCAGACCCAGGAGA  
 CGCGCACGCTCACGAGTTCACCTTCTCAGCTGGCCGGCAGAGGGCACACCGGCCCTCCACGCGGCCCT  
 GCTGGACTTCCGAGGAAGGTGAACAAGTGTACCGGGGCGCTCCTGCCCATCATCGTCACTGCAGT  
 GATGGTGCAGGGAGGACCGCACCTACATCTCATCGACATGGTCTGAACCGCATGGCAAAGGAGTGA  
 AGGAGATTGACATCGCTGCCACCCTGGAGCATGTCGTGACCAGCGCCCTGGCCTTGTCCGCTCTAAGGA  
 CCAGTTTGAATTTGCCCTGACAGCCGTGGCGGAGGAAGTGAATGCCATCTCAAGCCCTGCCCCAG

ACGCGTACGCGGCGGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC220230 representing NM\_002846  
 Red=Cloning site Green=Tags(s)

MRRPRRPGGLGGSGGLRLLLCLLLLSSRPGGCSAVSAHGCLFDRRLCSHLEVCIQDGLFGQCQVGVGQAR  
 PLLQVTSFVLRQLQGLRQLMSQGLSWHDDLQYVVISQEMERIPRLRPPEPRPRDRSGLAPKRPGPAGEL  
 LLQDIPTGSAPAAQHRLPQPPVKGKGGAGASSLSPLQAELLPLLEHLLLPPQPPHPSLSYEPALLQPYL  
 FHQFGSRDGSRVSESGPMVSVGPLPKAEAPALFRTASKGIFGDHPGHSYGDLPGPSAQLFQDSGLLY  
 LAQELPAPSRARVPRLPEQSSSRAEDSPEGYEKEGLGDRGEKPAVQPDAAALQRLAAVLAGYGVELR  
 QLTPEQLSTLLTLLQLLPGAGRNPGGVNVGADIKKTMEGPVEGRDTAELPARTSPMPGHPTASPTSSE  
 VQQVPSVPSSEPPKAARPPVTPVLEKKSPGQSQPTVAGQPSARPAEEYGIYVTDQKPLSLAAGVKLL  
 EILAEVHMSSGSFINISVVGPAITFRIRHNEQNL SLADVTQQAGLVKSELEAQTGLQILQTGVGQREEA  
 AAVLPQT AHSTSPMRSVLLTLVALAGVAGLLVALAVALCVRQHARQQDKERLAALGPEGAGHDTTFEYQD  
 LCRQHMAKSLFNRAEGPPEPSRVSSVSQFSDAAQASPSHSSTPSWCEEPAQANMDISTGHMILAYME  
 DHLRNRDLAKEWQALCAYQAEPNTCATAQEGEIKKRNHPDFLPYDHARIKLVKVESSPSRSDYINASPI  
 IEHDPMPAYIATQGPLSHTIADFWMVWESGCTVIVMLTPLVEDGVKQCDRYWPDEGASLYHYVEVNLV  
 SEHIWCEDFLVRSFYLNKVNQTQETRTLTFHFLSWPAEGTPASTRPLDFRRKVNKCYRGRSCPIIVHCS  
 DGAGRTGTIYLIDMVLNRMAGVKEIDIAATLEHVRDQRPGLVRSKDQFEFALTAVAEEVNAILKALPQ

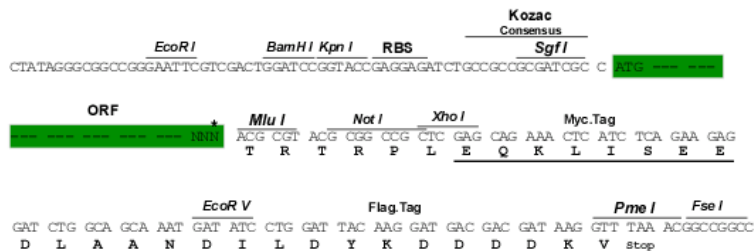
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8007\\_h05.zip](https://cdn.origene.com/chromatograms/mk8007_h05.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



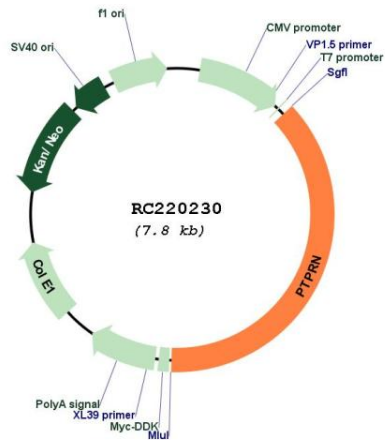
\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_002846

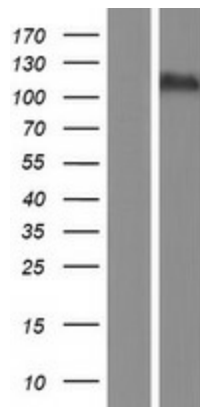
**ORF Size:** 2937 bp

<b>OTI Disclaimer:</b>	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 clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_002846.4</a>
<b>RefSeq Size:</b>	3649 bp
<b>RefSeq ORF:</b>	2940 bp
<b>Locus ID:</b>	5798
<b>UniProt ID:</b>	<a href="#">Q16849</a>
<b>Cytogenetics:</b>	2q35
<b>Protein Families:</b>	Druggable Genome, Transmembrane
<b>Protein Pathways:</b>	Type I diabetes mellitus
<b>MW:</b>	105.85 kDa
<b>Gene Summary:</b>	The protein encoded by this gene is a member of the protein tyrosine phosphatase (PTP) family. 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 possesses an extracellular region, a single transmembrane region, and a single catalytic domain, and thus represents a receptor-type PTP. This PTP was found to be an autoantigen that is reactive with insulin-dependent diabetes mellitus (IDDM) patient sera, and thus may be a potential target of autoimmunity in diabetes mellitus. Alternate splicing results in multiple transcript variants.[provided by RefSeq, Dec 2010]

Product images:



Circular map for RC220230



Western blot validation of overexpression lysate (Cat# [LY419074]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220230 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).