

## Product datasheet for RC202161

### TCPTP (PTPN2) (NM\_080422) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	TCPTP (PTPN2) (NM_080422) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TCPTP
Synonyms:	PTN2; PTPT; TC-PTP; TCELLPTP; TCPTP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC202161 representing NM_080422 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCCACCACCATCGAGCGGGAGTTCGAAGAGTTGGATACTCAGCGTCGCTGGCAGCCGCTGACTTGG  
AAATTCGAAATGAGTCCCATGACTATCCTCATAGAGTGGCCAAGTTTCCAGAAAACAGAAATCGAAACAG  
ATACAGAGATGTAAGCCCATATGATCACAGTCGTGTTAACTGCAAAATGCTGAGAATGATTATATTAAT  
GCCAGTTTAGTTGACATAGAAGAGGCACAAAGGAGTTACATCTTAACACAGGGTCCACTTCTAACACAT  
GCTGCCATTTCTGGCTTATGGTTTGGCAGCAGAAGACCAAGCAGTTGTCATGCTGAACCGCATTGTGGA  
GAAAGAATCGGTTAAATGTGCACAGTACTGGCCAACAGATGACCAAGAGATGCTGTTAAAGAAACAGGA  
TTCAGTGTGAAGCTCTTGTGAGAAGATGTGAAGTCGTATTATACAGTACATCTACTACAATTAGAAAATA  
TCAATAGTGGTGAACCAGAACAATATCTCACTTTCATTATACTACCTGGCCAGATTTTGGAGTCCCTGA  
ATCACCAGCTTCATTTCTCAATTTCTTGTTTAAAGTGAGAGAATCTGGCTCCTTGAACCCCTGACCATGGG  
CCTGCGGTGATCCACTGTAGTGCAGGCATTGGGCGCTCTGGCACCTTCTCTCTGGTAGACACTTGTCTTG  
TTTTGATGGAAAAGGAGATGATTAACATAAAAACAAGTGTACTGAACATGAGAAAATACCGAATGGG  
TCTTATTCAGACCCAGATCAACTGAGATTCTCATACATGGCTATAATAGAAGGACAAAATGTATAAAG  
GGAGATTCTAGTATACAGAAACGATGGAAGAAGTCTTCTAAGGAAGACTTATCTCCTGCTTTGATCATT  
CACAAAACAAAATAATGACTGAAAAATACAATGGGAACAGAATAGGTCTAGAAGAAGAAAAACTGACAGG  
TGACCGATGTACAGGACTTTCTCTAAAATGCAAGATACAATGGAGGAGAACAGTGAGAGTGCTCTACGG  
AAACGTATTCGAGAGGACAGAAAGGCCACCACAGCTCAGAAGGTGCAGCAGATGAAACAGAGGCTAAATG  
AGAATGAACGAAAAAGAAAAAGGCCAAGATTGACAGACACC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC202161 representing NM\_080422  
 Red=Cloning site Green=Tags(s)

MPTTIEREFEELDTQRRWQPLYLEIRNESHDPYHRVAKFPENRRNRNRYRDVSPYDHSRVKLQNAENDYIN  
 ASLVDIIEEAQRSYILTQGPLPNTCCHFWMVWQQKTKAVVMLNRIVEKESVKCAQYWPTDDQEMLFKETG  
 FSVKLLSEVDKSYTYVHLLQLENINSGETRTISHFYHTTWPDFGVPESPASFLNFLFKVRESGSLNPDHG  
 PAVIHCSAGIGRSGTFSLVDTCLVLEMEKDDINIKQVLLNMRKYRMGLIQTPDQLRFSYMAIIEGAKCIK  
 GDSSIQKRWELSKEDLSPAFDHPNKIMTEKYNGNRIGLEEEKLTGDRCTGLSSKMQDMEENSESALR  
 KRIREDRKATTAQKVQMKQRLNENERKRKRPRLTDT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



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

**ACCN:** NM\_080422

**ORF Size:** 1161 bp

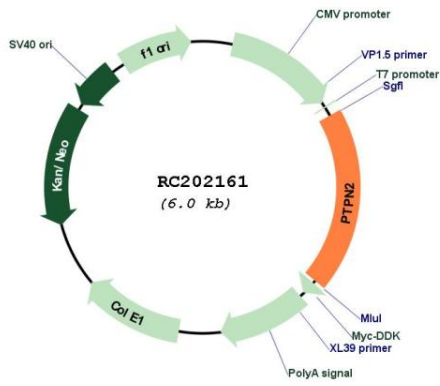
**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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. [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.

<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>	<u>NM_080422.2, NP_536347.1</u>
<b>RefSeq Size:</b>	1714 bp
<b>RefSeq ORF:</b>	1164 bp
<b>Locus ID:</b>	5771
<b>UniProt ID:</b>	<u>P17706</u>
<b>Cytogenetics:</b>	18p11.21
<b>Domains:</b>	Y_phosphatase, PTPc_motif
<b>Protein Families:</b>	Druggable Genome, Phosphatase, Transmembrane
<b>MW:</b>	45 kDa
<b>Gene Summary:</b>	The protein encoded by this gene is a member of the protein tyrosine phosphatase (PTP) family. 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. Epidermal growth factor receptor and the adaptor protein Shc were reported to be substrates of this PTP, which suggested the roles in growth factor mediated cell signaling. Multiple alternatively spliced transcript variants encoding different isoforms have been found. Two highly related but distinctly processed pseudogenes that localize to chromosomes 1 and 13, respectively, have been reported. [provided by RefSeq, May 2011]

Product images:



Circular map for RC202161