

Product datasheet for RC205090

TCPTP (PTPN2) (NM_080423) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TCPTP (PTPN2) (NM_080423) 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:	>RC205090 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGCCACCACCATCGAGCGGGAGTTCGAAGAGTTGGATACTCAGCGTCGCTGGCAGCCGCTGACTTGG
AAATTCGAAATGAGTCCCATGACTATCCTCATAGAGTGGCCAAGTTTCCAGAAAACAGAAATCGAAACAG
ATACAGAGATGTAAGCCCATATGATCACAGTCGTGTTAACTGCAAAATGCTGAGAATGATTATATTAAT
GCCAGTTTAGTTGACATAGAAGAGGCACAAAGGAGTTACATCTTAACACAGGGTCCACTTCTAACACAT
GCTGCCATTTCTGGCTTATGGTTTGGCAGCAGAAGACCAAGCAGTTGTCATGCTGAACCGCATTGTGGA
GAAAGAATCGGTTAAATGTGCACAGTACTGGCCAACAGATGACCAAGAGATGCTGTTTAAAGAAACAGGA
TTCAGTGTGAAGCTCTTGTGAGAAGATGTGAAGTCGTATTATACAGTACATCTACTACAATTAGAAAATA
TCAATAGTGGTGAACCAGAACAATATCTCACTTTTATTACTACCTGGCCAGATTTTGGAGTCCCTGA
ATCACCAGCTTCATTTCTCAATTTCTTGTAAAGTGAGAGAATCTGGCTCCTTGAACCTGACCATGGG
CCTGCGGTGATCCACTGTAGTGCAGGCATTGGCGCTCTGGCACCTTCTCTCTGGTAGACTTGTCTTG
TTTTGATGGAAAAGGAGATGATTAACATAAAAACAGTGTACTGAACATGAGAAAATACCGAATGGG
TCTTATTCAGACCCAGATCAACTGAGATTCTCATACATGGCTATAATAGAAGGACAAAATGTATAAAG
GGAGATTCTAGTATACAGAAACGATGGAAGAAGTCTTAAGGAAGACTTATCTCCTGCCTTTGATCATT
CACCAAAACAAAATAATGACTGAAAATACAATGGGAACAGAATAGGTCTAGAAGAAGAAAACAGGAGG
TGACCGATGTACAGGACTTCTCTAAAATGCAAGATACAATGGAGGAGAACAGTGAGAGGCCAAGATTG
ACAGACACC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC205090 protein sequence
Red=Cloning site Green=Tags(s)

MPTTIEREFEELDTQRRWQPLYLEIRNESHDYPHRVAKFPENRNRNRYRDVSPYDHSRVKLQNAENDYIN
 ASLVDIEEAQRSYILTQGPLPNTCCHFWMVWQQTAKAVVMLNRIVEKESVKCAQYWPTDDQEMLFKETG
 FSVKLLSEVDKSYTYVHLLQLENINSGETRTISHFYHTTWPDFGVPESPASFLNLFKVVRESGSLNPDHG
 PAVIHCSAGIGRSGTFLVDVDTCLVLEMEKGDIDINIKQVLLNMRKYRMGLIQTPDQLRF SYMAIEGAKCIK
 GDSSIQKRWKELSKEDLSPAFDHSPNKIMTEKYNGNRIGLEEEKLTGDRCTGLSSKMQDTMEENSERPRL
 TDT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6425_a02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_080423

ORF Size: 1059 bp

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 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.

Components: 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).

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_080423.2](#)

RefSeq Size: 1619 bp

RefSeq ORF: 1062 bp

Locus ID: 5771

UniProt ID: [P17706](#)

Cytogenetics: 18p11.21

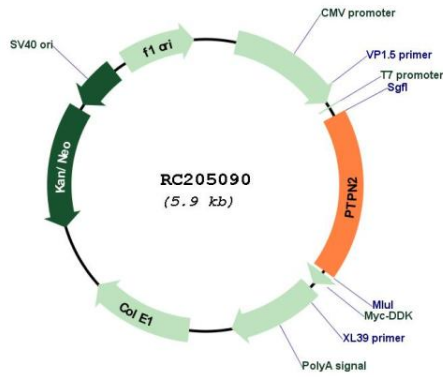
Domains: Y_phosphatase

Protein Families: Druggable Genome, Phosphatase, Transmembrane

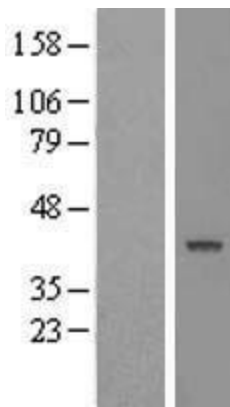
MW: 41 kDa

Gene Summary: 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]

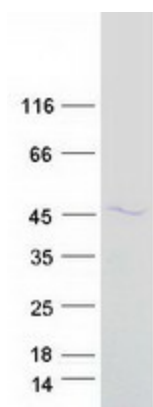
Product images:



Circular map for RC205090



Western blot validation of overexpression lysate (Cat# [LY409168]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205090 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PTPN2 protein (Cat# [TP305090]). The protein was produced from HEK293T cells transfected with PTPN2 cDNA clone (Cat# RC205090) using MegaTran 2.0 (Cat# [TT210002]).