

Product datasheet for **RC204381**

PTOP (ACD) (NM_001082486) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PTOP (ACD) (NM_001082486) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PTOP
Synonyms:	PIP1; PTOP; TINT1; TPP1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC204381 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCCTGGCCGCTGTGACAGTACGCGCGGATGAGAGTAAACGGGCCAGCATCCCCTGCACCAGCGGGT
 GGACCAGCGGGAGTCTGCACACAGGCCCCGAGCAGGACGCCCTCGTGCCAGGCCGCGGGGTGTAGGTGG
 GCGGGGCTCCTCCTCCGGCCCCGCCAGCAAGGAGTTCCTCTCCGAGGAAAGCGGGGCTGGGCG
 CCCGCGGAAACCCGGGCCGTTGCATCCGCTGGGTGTAGCCGTGGGATGGCAGGTTCCGGGAGGCTGG
 TCCTACGGCCCTGGATTCGGGAGCTGATTCTGGGGTACAGACACCCTCCAGTCCACGAGCCGGGACGT
 GCTTGAGTACTACAGGACGCCGAGGCCGCGGTGCGGGGCCATCCCACGCCCTGATACGTCGACGTC
 GGGGCCACGCTGCTTGTGTGACGGGACCCACAGTGTCCGATGCCTGGTACGCGGGAGGCCCTGGACA
 CCTCGGACTGGGAGGAGAAGGAGTTCGGCTTCCGCGGGACAGAGGCCGGCTGCTGCTGTCAGGACTG
 CGGGTTCATGTCCAGGTCGCTGAGGGCGCGCCCGCAGAGTCTATCTCCAGGTGGACCGCTTACGC
 CTGCTGCCACGGAGCAGCCCCGGCTACGGGTGCCTGGTTGCAACCAAGACTTAGATGTTAGAAAAAGC
 TCTATGACTGCCTTGAGGAGCACCTTTCAGAGTCCACCTCGTCCAATGCAGGCCTATCACTGTCCCAGCT
 TCTGGATGAAATGCGGGAGGACCAGGAGCATCAGGGGGCACTCGTGTGCCTGGCTGAAAGCTGCCTGACA
 CTGGAGGGCCCTTGACAGCACCCCTGTACCCACTGGGCTGCCTCACGATGCAAGGCCACGGGAGAAG
 CTGTGTACACTGTCCCAGCTCAATGCTGTGCATCTCTGAGAATGACCAGCTAATTTGAGCTCTTAGG
 CCCCTGTAGAGGACACAGGGCCCTGAGCTGCCCCACCAGACCCGGCTTGCAGGACCTATCTGACC
 CTCATAGCCTCTCCTCCTCCTCACCCAGTTCCTCAGGAACCCCGGCTTACCCGGCCACATGTCATCCG
 AGGAAAGTGGTACCAGCATCAGCCTTCTGCCTGCCCTGTCTTGGCTGCTCCAGACCCAGGGCAGAGAAG
 CAGCTCCCAGCCCTCACCAGCCATCTGCTCAGCCCTGCCACCCTGACCCCAAGTCCCCACACGCCAGC
 CGTACCCCAAGCTCCCCACTCCAGAGTGCACCTCCAGTCTCTCACCCCGTAGCCATGTCCCAGTCCAC
 ACCAGGCTCTTGTGACCAGGCCCCAGAACTAGCCTGGAGTCAAGGAGTTTGTAGGGTTGCCCTGCAA
 GAATCGGCCGCTTTTCCAGGACCGGAGCTACCAGGGGAGCCAGGAGCCCTGCTGCTGTTGGAAACCC
 CCAAAGAGGCATCGTGATGGTTCTGCCTCCAGTATGAGTATGAGCCACCCTGCACGTCCTCTGTGCTC
 GGGTCAAAGCTGCCAGGCTTCTCCCCAGCTCATGGCTGGGCTTGCACTTTCTGATGGATGCACAGCC
 AGGTCTGAGCCAACCTCCGATG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC204381 protein sequence
 Red=Cloning site Green=Tags(s)

MPGRCQSDAAMRVNGPASRAPAGWTSGLHTGPRAGRPRQAQARGVRRGLLLLRPRPAKELPLPRKGGAWA
 PAGNPGPLHPLGVAVGMAGSRLVLRPWIRELILGSETPSSPRAGQLLEVLQDAEAAVAGPSHAPDTS
 GATLLVSDGTHSVRCLVTREALDTSWEEKFEGFRGTEGRLLLLQDCGVHVQVAEGGAPAEFYLQVDRFS
 LLPTEQPRLRVPGCNQDLDVQKLYDCLLEHLSESTSSNAGLSLQLLDEMREDQEHQALVCLAESCLT
 LEGPCTAPPVTHWAASRCKATGEAVYTPSSMLCISENDQLILSSLGPCQRTQGPPELPPDPALQDLSL
 LIASPPSSPSSSGTPALPGHMSSEESGTSISLLPALSLAAPDPGQRSSQPSAICSAPATLTPRSPHAS
 RTPSSPLQSCPSLSPRSHVPSPHQALVTRPQKPSLEFKEFVGLPCKNRPPFPRTGATRGAQEPCSVWEP
 PKRHRDGSFAFYEYPPCTSLCARVQAARLPQLMAWALHFLMDAQPGSEPTPM

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6311_f06.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_001082486

ORF Size: 1632 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_001082486.1](#), [NP_001075955.1](#)

RefSeq Size: 2095 bp

RefSeq ORF: 1377 bp

Locus ID: 65057

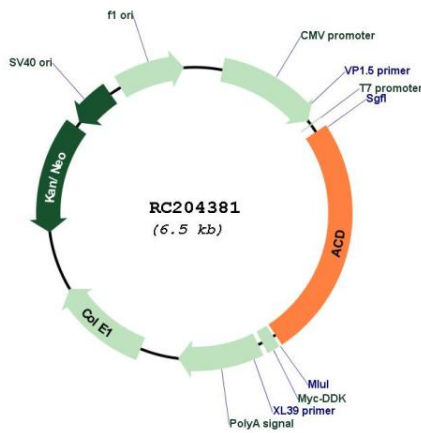
UniProt ID: [Q96AP0](#)

Cytogenetics: 16q22.1

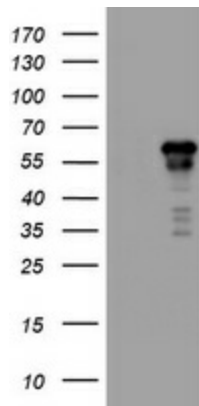
MW: 57.7 kDa

Gene Summary: This gene encodes a protein that is involved in telomere function. This protein is one of six core proteins in the telosome/shelterin telomeric complex, which functions to maintain telomere length and to protect telomere ends. Through its interaction with other components, this protein plays a key role in the assembly and stabilization of this complex, and it mediates the access of telomerase to the telomere. Multiple transcript variants encoding different isoforms have been found for this gene. This gene, which is also referred to as TPP1, is distinct from the unrelated TPP1 gene on chromosome 11, which encodes tripeptidyl-peptidase I. [provided by RefSeq, Jul 2008]

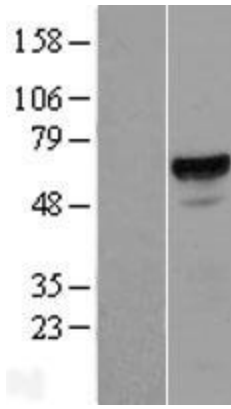
Product images:



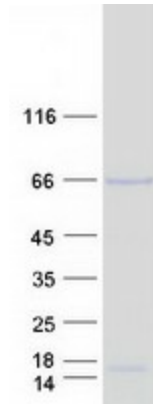
Circular map for RC204381



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ACD (Cat# RC204381, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ACD (Cat# [TA504379]). Positive lysates [LY421183] (100ug) and [LC421183] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY421183]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204381 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ACD protein (Cat# [TP304381]). The protein was produced from HEK293T cells transfected with ACD cDNA clone (Cat# RC204381) using MegaTran 2.0 (Cat# [TT210002]).