

Specifications:

Gene:	hTERT
Accession:	NP_937983.2
Insert size:	3412bp
Concentration:	10µg at 0.2µg/µL

Description

This shuttle vector contains the complete ORF for the gene of interest, along with a Kozak consensus sequence for optimal translation initiation. It is inserted NotI to AscI. The gene insert is flanked with convenient multiple cloning sites which can be used to easily cut and transfer the gene cassette into your desired expression vector.

Preparation and Storage

Formulation	cDNA is provided in 10 mM Tris-Cl, pH 8.5
Shipping	Ships at ambient temperature
Stability	1 year from date of receipt when stored at -20°C to -80°C
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

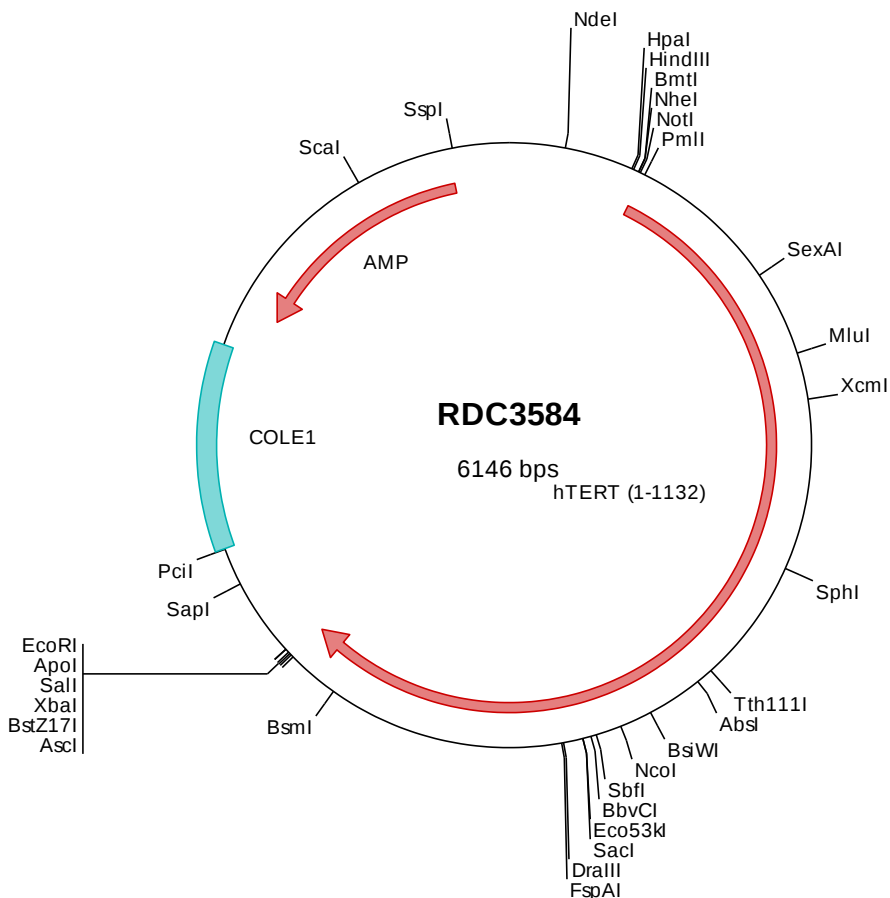
hTERT cDNA Plasmid

TERT telomerase reverse transcriptase [*Homo sapiens* (human)]

Also known as: TP2; TRT; CMM9; EST2; TCS1; hTRT; DKCA2; DKCB4; hEST2; PFBMFT1

Summary:

Telomerase is a ribonucleoprotein polymerase that maintains telomere ends by addition of the telomere repeat TTAGGG. The enzyme consists of TERT, a protein component with reverse transcriptase activity, and an RNA component which serves as a template for the telomere repeat. Telomerase expression plays a role in cellular senescence, as it is normally repressed in postnatal somatic cells resulting in progressive shortening of telomeres. Dereglulation of telomerase expression in somatic cells may be involved in oncogenesis. Studies in mouse suggest that telomerase also participates in chromosomal repair, since de novo synthesis of telomere repeats may occur at double-stranded breaks.



FOR RESEARCH USE ONLY

NOT FOR USE IN HUMANS

> RDC3584 Plasmid DNA Sequence

```

1   tcgcgcgcttt cggatgatgac ggtgaaaacc tctgacacat gcagctcccc gagacggtca cagcttgtct gtaagcggat gccgggagca gacaagcccc
101  tcaggggcgcg tcagcgggtg ttggcgggtg tccgggctgg cttactatg cggcatcaga gcagattgta ctgagagtg accatatgcg gtgtgaaata
201  ccgcacacgat gcgtaaggag aaaataccgc atcaggcgcc attgccatt caggctcgcc aactgttggg aagggcgatc ggtgcgggcc tcttcgctat
301  tacgccaagct ggcgaaaagg ggaatgtgtg caaggcgatt aagttgggta agccagggtt tttcccgatc acgacgttgt aaaacgacgg ccagtgaaat
401  ggagacgtgt taacaagctt ggatccgata tgcgtagcgc ggccgccacc atgccacgtg ctcccccgctg ccgagccgtg cgtccctgc tgccgagcca
501  ctaccgcgag gtgctgcccc tggccacgct cgtgcggcgc ctggggcccc agggctggcg gctggtgcag cgcggggacc cggcggtctt ccgcgcgctg
601  gtggccacgt gccctggtgt cgtgcctcgt gacgcacggc cgcctccccc cgcctccccc ttcgccaggg tgctctgctt gaaggagctg gtggcccgag
701  tgcgtgcag gctgtgcgag cgcggcgaga agaacgtgct ggccctcgcc ttcgcgctgc tggacggggc ccgcccgagg ccttcaccac ccttcaccac
801  cagcgtgcgc agctacactgc ccaacacggt gaccgacgca ctgcggggga gcggggcgct ggggctgctg ctgcgcccg cgtgtacca gctcggcgct gccactcagg
901  cacctgctgg cacgctgcgc gctctttgtg ctggtggctc ccagctgcgc cgggctcgga accatagcgt caggagggcc ggggtcccc ttggcctgct
1001 cccggccccc gccacacgct agtggacccc gaagcgctct ggggatgcga agtctgcgt tgcocaaagg gccacggcgt ggcgctgccc ctgagccgga cgggacgccc
1101 agccccgggt gcgaggaggg cggggggcag tggccagcga agtctgcgt tgcocaaagg cccagcgctg tgtgtggtgt cacctgccag acccccgaa gaagccacct
1201 gttggggcgg ggtcctgggg ccacccgggc aggcacgctg gaccagtgta gaccagtgta cctgtgtttt acgcggggcc ccccgccgaa tcccgccgaa gaagccacct
1301 ctttggaggg ggtcctgctc ttccacgccc ggcacgcgca gaccagtgta ttccttact cctcaggcga caaggagcag ctgcggccct ccttctact cagctctctg
1401 ggacacgctc tgtcccccg tgaacgcga tccggagctc gtggagacca tcttctggtg tccaggcccc tggatgccag ggaactcccc caggttgccc cgcctgcccc
1501 agggccagcc tgaactggcg tcggagctct tggagctttt cgggaacac tgggaacac cctacgggtt gctctcagg cctcagtgcc cgtctgcagc
1601 agcgtcagc ccagcagcgc gtgtctgtgc ccgggagaa cccagggct cgtgtgcgc ccccgaggag gaggacacag acccccgctg cctgtgtgag
1701 tgcggtcacc ccagcagcgc gtgtctgtgc ccctggcag cccctggcag cctgtgcgc cccctggcag cctgtgtgag aggcacacag tgggctgccc
1801 ctgctccgccc agcagcagc cccctggcag cccctggcag cctgtgcgc cctgtgcgc cccctggcag cctgtgtgag aggcacacag tgggctgccc
1901 aacggccccc gccacacgct accaagaagt accaagaagt cctatctccc tcatctccc ggcgcagac acgctgtcgc tgaggagatc ctggccaaat tctctgactg
2001 cgtctggctg ccgaggagcc cagggttggg cgtgtgttgc cgtgtgttgc cgtgtgttgc cgtgtgttgc cgtgtgttgc cgtgtgttgc cgtgtgttgc
2101 gtgtacgtgc tgcagctgct caggtcttgc ttttactgca cgtgtgttgc cgtgtgttgc cgtgtgttgc cgtgtgttgc cgtgtgttgc cgtgtgttgc
2201 tgcacacgct tgcacacgct tgcacacgct tgcacacgct tgcacacgct tgcacacgct tgcacacgct tgcacacgct tgcacacgct tgcacacgct
2301 gacgtccaga cctcgtctca tcccaagccc tgacgggtgc cgtgcgggtg tgcacacgct tgcacacgct tgcacacgct tgcacacgct tgcacacgct
2401 gccagcgtgc tccagcgtgc ggtgaaggca cgtgtcagcg tgcacacgct tgcacacgct tgcacacgct tgcacacgct tgcacacgct tgcacacgct
2501 agcatatcca cagggtcgtg gcacacttgc tgcacacttgc tgcacacttgc tgcacacttgc tgcacacttgc tgcacacttgc tgcacacttgc tgcacacttgc
2601 cgacaccatc cccagggaga ggcctacgga ggcctacgga ggcctacgga ggcctacgga ggcctacgga ggcctacgga ggcctacgga ggcctacgga
2701 gccatgtggc acgtccgcaa ggccttcaag agcactgcgc cctacactgc cctacactgc cctacactgc cctacactgc cctacactgc cctacactgc
2801 gcccgctgag ggaatgcgtc gctacagcgc agagctcctc cctgaatgag ggcagcagct ggcagcagct ggcagcagct ggcagcagct ggcagcagct
2901 cgtgcgcata tggcgcaagt cctacgtcca gtcgcgggtg gtcgcgggtg gtcgcgggtg gtcgcgggtg gtcgcgggtg gtcgcgggtg gtcgcgggtg
3001 aacaagctgt ttggcggtat tggcggtgac tggcggtgac tggcggtgac tggcggtgac tggcggtgac tggcggtgac tggcggtgac tggcggtgac
3101 tcaggacccc ggttcagagt gtcctcaggt gtcctcaggt gtcctcaggt gtcctcaggt gtcctcaggt gtcctcaggt gtcctcaggt gtcctcaggt
3201 ggtcttttgt cagatgcggg cccacggcct cccacggcct cccacggcct cccacggcct cccacggcct cccacggcct cccacggcct cccacggcct
3301 cggaccccga tccagcagcc tccacacgga tccacacgga tccacacgga tccacacgga tccacacgga tccacacgga tccacacgga tccacacgga
3401 gctctgttct ggatttgcag gtgaacagcc tccacagcgt gtgaacagcc tccacagcgt gtgaacagcc tccacagcgt gtgaacagcc tccacagcgt
3501 cgaactccca tttcactcag aagtttggaa gaaccccaga ttttctcgtg cgtgcgggtg cgtgcgggtg cgtgcgggtg cgtgcgggtg cgtgcgggtg
3601 aacgcagcga ttgcctgggg ggcacagggc cctcgtcctc cctcgtcctc cctcgtcctc cctcgtcctc cctcgtcctc cctcgtcctc cctcgtcctc
3701 gacacccgtg cactacgtg cactcctcgt cactcctcgt cactcctcgt cactcctcgt cactcctcgt cactcctcgt cactcctcgt cactcctcgt
3801 cgcagccaac cggcagcctg cctcagactt cctcagactt cctcagactt cctcagactt cctcagactt cctcagactt cctcagactt cctcagactt
3901 cgtctctagc ttggcgtaat catggtcata cgtgttctct gtgtgaaatt gttatccgct cttactgccc gctttccagt gctgcccagt gctgcccagt
4001 aaagcctggg gtgcctaagt agtgagctaa ctcacattaa tgcgtatttg ggcgtatttg ggcgtatttg ggcgtatttg ggcgtatttg ggcgtatttg
4101 gaatcgccca acgcgcgggg agagcggtgt tgcgtatttg ggcgtatttg ggcgtatttg ggcgtatttg ggcgtatttg ggcgtatttg ggcgtatttg
4201 ggtatcagct cactcagaag cggtaatacg gttatccaca gttatccaca gttatccaca gttatccaca gttatccaca gttatccaca gttatccaca
4301 cgtaaaaagg ccgcgttgcg ggcgttttct catagctccc gcccctctga cgtgcgtctc ctcagctcgt ctcagctcgt ctcagctcgt ctcagctcgt
4401 gactataaag ataccagggc tttcccctgt ttcctcctc ctcagctcgt ctcagctcgt ctcagctcgt ctcagctcgt ctcagctcgt ctcagctcgt
4501 gggaaagcgt gcgctttctc attcgtcagc ctcagctcgt ctcagctcgt ctcagctcgt ctcagctcgt ctcagctcgt ctcagctcgt ctcagctcgt
4601 cccgaccgct gcgcttctc cgttaactat cgtcttgagt ccttgaagtg ggtgcctaac cgcgtgtgag aagacacgac taagggtata ctagggtata
4701 gaggcaggtg ttagggcgtt gttacagagt ttggtccggt ttttctcagg ggtctgacgc ttcagtggaac atctaaagta atctaaagta
4801 agttaccttc gtaaaaaagag ttggtagctt ttttctcagg ggtctgacgc ttcagtggaac atctaaagta atctaaagta atctaaagta
4901 aaaaaaggat ctcaagaaga tcttttgatc ttttctcagg ggtctgacgc ttcagtggaac atctaaagta atctaaagta atctaaagta
5001 aaaggatctt cactatagat ccttttaaat aaaaaagat aaaaaagat aaaaaagat aaaaaagat aaaaaagat aaaaaagat aaaaaagat
5101 cagttagcga cctatctcag cgtatctgct atctctgctc tccatgctca tccatgctca tccatgctca tccatgctca tccatgctca tccatgctca
5201 ggccccagtg ctgcaatgat accgcgagac cccagcagac cccagcagac cccagcagac cccagcagac cccagcagac cccagcagac cccagcagac
5301 ctgcaacttt atccgcctcc atccagctc tgcgtctgct gtcgtctgct gtcgtctgct gtcgtctgct gtcgtctgct gtcgtctgct gtcgtctgct
5401 tacaggcatt gtgtgttcac cctcgtcgtt tgcgtctgct gtcgtctgct gtcgtctgct gtcgtctgct gtcgtctgct gtcgtctgct gtcgtctgct
5501 aaagcgttta gctcctcgt tctcctcgtc tctcctcgtc tctcctcgtc tctcctcgtc tctcctcgtc tctcctcgtc tctcctcgtc tctcctcgtc
5601 tcatgccatc cgtaagatgc ttttctgtga aactttaaaa cactatagcag cactatagcag cactatagcag cactatagcag cactatagcag cactatagcag
5701 aatacgggat aatacgggat cactatagcag cactatagcag cactatagcag cactatagcag cactatagcag cactatagcag cactatagcag cactatagcag
5801 agatccagtt cgatgtaacc cactcgtgca cccaaactgat cccaaactgat cccaaactgat cccaaactgat cccaaactgat cccaaactgat cccaaactgat
5901 ccgcaaaaaa ggggaataag gcgacacgga aatgttgat actcatactc ttctcttttc ttctcttttc ttctcttttc ttctcttttc
6001 cggatataca tttgaatgta ttaaaaaaaa ggggttcgca gcatatttcc gcatatttcc gcatatttcc gcatatttcc gcatatttcc gcatatttcc
6101 atgacattaa cctataaaaa taggcgtatc acagggccct tctctcgc

```

> RDC3584 Translated Insert Sequence

```

1   mpraprccrav rslrshyre vlplatfvrr lpgqgwrlvq rgdpaafral vaqclvcvpw darpppaaps frqvscikel varvlqlrce rgaknvlafg
101  fallldgarg ppeafttsvr sylpntvttda lrgsgawgll lrrvgddvvl hllarcalfv lvapscaqv frqpplyqlga atqarpppha sgprrrlgec
201  rawnhsvrea gvpilglpapg arrrggsasr slplpkprpr gaapepertz vgggswahpg rtrgpsdrfg cvvsparpae eatslegals gtrhshpsvg
301  rqhhagppst srpprpwdtp cpvpyaetkh flyssgdkcq lrpsfllssl rpsltgarrrl vetiflgsrp wmpgtprrlp rlpqrywqmr plfellelgnh
401  aqcpvygvlk thcpbraavt paagvcarek pggsvaaapee edtdprlrvq llrghsspwq vygfvracrl rlvppglwgs rhnerrflrn tkkfislghk
501  aklsiqeltl kmsvrdcawl rrspgvvcgv aaehrlreei lrfikpdpdl rpivmndyvv lrvvllrslf llyvllrslf nkflfyrksv qhikrvqlre
601  lseaevrqhr earpalltsr lrfikpdpdl rpivmndyvv gartfrrekr aerltsrvka lfsvllyera rrpqllgasv lglldihraw rtfvlrvraq
701  dpppelyfvk vdvgtaydti pqrdrtevia siikpqntyc vrryavvqka ahghvrkafk shvstltdlq pymrqfvahl qetsplrdav vieqssslne
801  assglfdvfl rfmchhavri rgksyvcqcg ipdggsilsl lcslycgdme nkifaglrdd gllrlvdddf llvtphltha ktflrtlvrg vpeygcvnvl
901  rktvvnfpve dealggtafv qmpahglfpw cgllldtrtl evgsdyssya rtsirasltf nrgfkagrmn rrklfgvlrl kchslfldlq vnslqvtctn
1001 iykillllqay rfhacvllql fhqgvwnknt flfrlvisdta slcysilkak nagmslgakg aagplpseav gwlchqafll kltrhrvtyv pllgslrtaq
1101 tqlsrklpgt tltaleaaan palpsdfkti ld

```