

## Product datasheet for RC231464

### Telomerase reverse transcriptase (TERT) (NM\_001193376) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Telomerase reverse transcriptase (TERT) (NM_001193376) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Telomerase reverse transcriptase
Synonyms:	CMM9; DKCA2; DKCB4; EST2; hEST2; hTRT; PFBMFT1; TCS1; TP2; TRT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC231464 representing NM_001193376 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCCGCGCTCCCGCTGCCGAGCCGTGCGCTCCCTGCTGCGCAGCCACTACCGCAGGTGCTGCCGC  
TGGCCACGTTTCGTGCGCGCCTGGGGCCCCAGGGCTGGCGGTGGTGCAGCGGGGACCCGGCGGCTTT  
CCGCGCGTGGTGGCCAGTGCCTGGTGTGCGTGCCTGGGACGCACGGCCGCCCGCCCGCCCTCC  
TTCGCGCAGGTGCTCCTGCCTGAAGGAGCTGGTGGCCGAGTGTGCAGAGGCTGTGCGAGCGGGCGGA  
AGAACGTGCTGGCCTTCGGCTTCGCGCTGCTGGACGGGGCCCGGGGGCCCCCGAGGCCTTACCAC  
CAGCGTGCAGCTACCTGCCAACACGGTGACCGACGCACTGCGGGGAGCGGGGCGTGGGGGCTGCTG  
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TGCCAAAGAGGCCAGGCGTGGCGCTGCCCTGAGCCGGAGCGGACGCCGTTGGCAGGGGTCTGGGC  
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ACGCGGGCCCCCATCCACATCGCGGCCACCAGTCCCTGGGACACGCCCTTGTCCCGGTGTACGCCGA  
GACCAAGCACTTCTCTACTCCTCAGGCGACAAGGAGCAGCTGCGGCCCTCCTTCTACTCAGCTCTCTG  
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ACCCCGTCCCTGGTGCAGCTGCTCCGCCAGCACAGCAGCCCCGTCAGGTGTACGGCTTCGTGCGGGC  
CTGCTGCGCCGCTGGTCCCCAGGCCTCTGGGGTCCAGGCACAACGCGCCTTCTCAGGAAC



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ACCAAGAAGTTCATCTCCCTGGGAAGCATGCCAAGCTCTCGCTGCAGGAGCTGACGTGGAAGATGAGCG  
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**Protein Sequence:**

>RC231464 representing NM\_001193376  
 Red=Cloning site Green=Tags(s)

MPRAPRCRAVRSLLRSHYREVLPLATFVRRLLGPQWRLVQRGDPAAFRALVAQCLVCPWDARPPPAAPS  
 FRQVSCLKELVARVLQRLCERGAKNVLAFFALLDARGGPPEAF TTSVRSYLPNTVTDALRSGAWGLL  
 LRRVGGDVLVHLLARCALFVLVAPSCAYQVCGPPLYQLGAATQARPPPHASGPRRRLGCERAWNHSVREA  
 GVPLGLPAPGARRRGGASRSRSLPLPKRPRRGAPEPERTPVGQGSWAHPGRTRGSPDRGFCVVSARPAE  
 EATSLEGALSGTRHSHPSVGRQHHAGPPSTRPWRPDPVVAETKHFLYSSGDKEQLRPSFLLSSL  
 RPSLTGARRLVETIFLGSRPWMPGTPRRLPRLPQRYWQMRPLFLELLGNHAQCPYGVLLKTHCPLRAAVT  
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 FYVTETTFQKNRLLFFYRKS VWSKLQSIGIRQH LKRVQLRELSAEVQRHREARPLLTSRLRFIPKPDGL  
 RPIVNM DYVVGARTFRREKRAERLTSRVKALF SVLNYERARRPGLLGASVLGLDDIHRARWTFVLRVRAQ  
 DPPPELYFVKVDVTGAYDTIPQDRLTEVIASIIKPNQNTYVRRYAVVQKAAHGHVRKAFKSHVSTLTDLQ  
 PYMRQFVAHLQETSPLRDAVVIEQSSSLNEASSGLFDVFLRFMCHHAVRIRGKSYVQCQGIPOQSILSTL  
 LCSLCYGD MENKLFAGIRRDGLLRLVDDFLLVTPHLTHAKTFLSYARTSIRASLTFNRFKAGRNMRK  
 LFGVLR LKCHSLF LDLQVNSLQTVCTNIYKILLQAYRFHACVLQLPFHQVWKNPTFFLRFV ISDTASLC  
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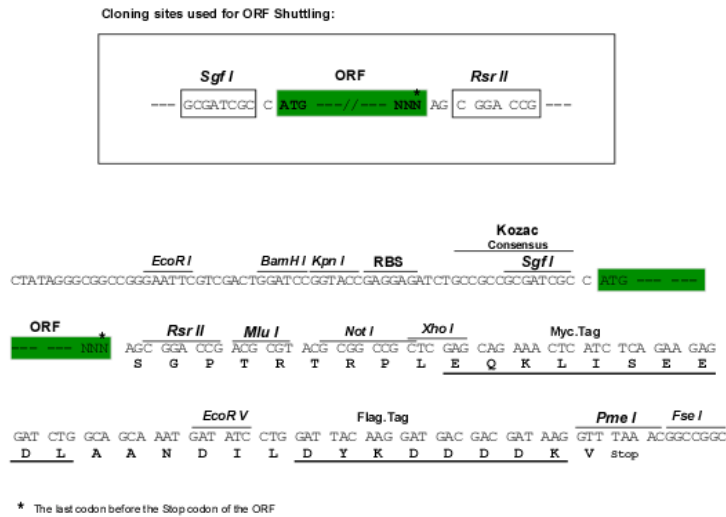
SGPTRRPLEQKLI SEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/ja3243\\_b02.zip](https://cdn.origene.com/chromatograms/ja3243_b02.zip)

Restriction Sites: SgfI-RsrII

Cloning Scheme:



ACCN: NM\_001193376

ORF Size: 3207 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\\_001193376.2](#)

RefSeq Size: 3829 bp

RefSeq ORF: 3210 bp

Locus ID: 7015

UniProt ID: [O14746](#)

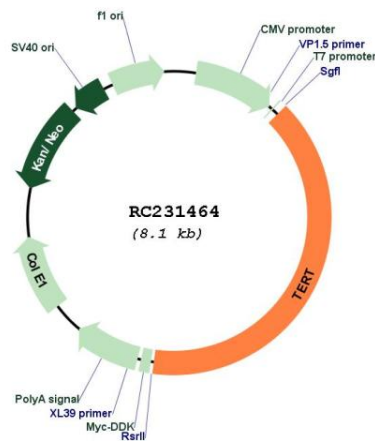
**Cytogenetics:** 5p15.33

**Protein Families:** Druggable Genome

**MW:** 120 kDa

**Gene Summary:** Telomerase is a ribonucleoprotein polymerase that maintains telomere ends by addition of the telomere repeat TTAGGG. The enzyme consists of a protein component with reverse transcriptase activity, encoded by this gene, 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. Deregulation 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. Alternatively spliced variants encoding different isoforms of telomerase reverse transcriptase have been identified; the full-length sequence of some variants has not been determined. Alternative splicing at this locus is thought to be one mechanism of regulation of telomerase activity. [provided by RefSeq, Jul 2008]

**Product images:**



Circular map for RC231464