

Product datasheet for RC403771

Telomerase reverse transcriptase (TERT) (NM_198253) Human Mutant ORF Clone

Product data:

Product Type:	Mutant ORF Clones
Product Name:	Telomerase reverse transcriptase (TERT) (NM_198253) Human Mutant ORF Clone
Mutation Description:	R811C
Affected Codon#:	811
Affected NT#:	2431
Nucleotide Mutation:	TERT Mutant (R811C), Myc-DDK-tagged ORF clone of Homo sapiens telomerase reverse transcriptase (TERT), transcript variant 1 as transfection-ready DNA
Effect:	Dyskeratosis congenita
Symbol:	TERT
Synonyms:	CMM9; DKCA2; DKCB4; EST2; hEST2; hTRT; PFBMFT1; TCS1; TP2; TRT
E. coli Selection:	Kanamycin (25 ug/mL)
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
Tag:	Myc-DDK
ACCN:	NM_198253
ORF Size:	3396 bp
Restriction Sites:	SgfI-RsrII
ORF Nucleotide Sequence:	>RC403771 representing NM_198253 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCCGCGCTCCCCGCTGCCGAGCCGTGCGCTCCCTGCTGCGCAGCCACTACCGGAGGTGCTGCCGC
TGGCCACGTTCGTGCGGCGCCTGGGGCCCCAGGGCTGGCGGTGGTGCAGCGCGGGGACCGGGCCTTT
CCGCGCGCTGGTGGCCAGTGCCTGGTGTGCGTGCCCTGGGACGCACGGCCGCCCGCCCGCCCTCC
TTCCGCCAGGTGTCTGCCTGAAGGAGCTGGTGGCCCGAGTGTGCAGAGGTGTGCGAGCGGGCGCA
AGAACGTGCTGGCCTTCGGCTTCGCGCTGCTGGACGGGGCCCGGGGGCCCCCGAGGCCTTACCAC
CAGCGTGGCAGCTACCTGCCAACACGGTGACCGACGCACTGCGGGGAGCGGGGCGTGGGGCTGCTG
CTGCGCCGCTGGGCGACGACGTGCTGGTTCACCTGCTGGCACGCTGCGCGCTTTGTGCTGGTGGCTC



[View online »](#)

CCAGTGCGCCTACCAGGTGTGCGGGCCGCGCTGTACCAGCTCGGCGCTGCCACTCAGGCCCGGCCCC
GCCACACGCTAGTGGACCCGAAGGCGTCTGGGATGCGAACGGGCTGGAACCATAGCGTCAGGGAGGCC
GGGGTCCCCCTGGGCCTGCCAGCCCCGGGTGCGAGGAGGCGGGGGCAGTGCCAGCCGAAGTCTGCCGT
TGCCAAAGAGGCCAGGCGTGGCGCTGCCCTGAGCCGGAGCGGACGCCCGTTGGGCAGGGGTCTGGGC
CCACCCGGGACAGGACGCGTGGACCGAGTGACCGTGGTTTCTGTGTGGTGTACCTGCCAGACCCGGAA
GAAGCCACCTCTTTGGAGGGTGCCTCTCTGGCACGCGCCACTCCCACCATCCGTGGGCCCGCAGCACC
ACGCGGGCCCCCATCCACATCGCGGCCACCAGTCCCTGGGACACGCCTTGCCCCCGGTGACCGCGA
GACCAAGCACTTCTCTACTCCTCAGGGGACAAGGAGCAGCTGCGGCCCTCCTTCTACTCAGTCTCTG
AGGCCAGCCTGACTGGCGCTCGGAGGCTCGTGGAGACCATCTTCTGGGTTCCAGGCCCTGGATGCCAG
GGACTCCCCGAGGTTGCCCGCCTGCCAGCGCTACTGGCAAATGCGGCCCTGTTTCTGGAGCTGCT
TGGGAACCACGCGCAGTGCCCTACGGGTGCTCCTCAAGACGCACTGCCGCTGCGAGCTGCGGTACCC
CCAGCAGCCGGTGTCTGTGCCGGGAGAAGCCCCAGGGCTCTGTGGCGGCCCGAGGAGGACACAG
ACCCCGTGCCTGGTGCAGTGTCTCCGCCAGCACAGCAGCCCTGGCAGGTGTACGGCTTCGTGCGGGC
CTGCTGCGCCGGTGGTCCCCAGGCTCTGGGGCTCCAGGCACAACGAACGCCGCTTCTCAGGAAC
ACCAAGAAGTTTCTCCTGGGAAGCATGCCAAGCTCTCGTGCAGGAGCTGACGTGGAAGATGAGCG
TGCGGGACTGCGCTTGGCTGCGCAGGAGCCAGGGTTGGCTGTGTTCCGGCCGAGAGCACCGTCTGCG
TGAGGAGATCCTGGCCAAGTTCCTGCACTGGCTGATGAGTGTGTACGTCTGAGCTGCTCAGGTCTTTC
TTTTATGTACGGAGACCACGTTTCAAAGAACAGGCTCTTTTCTACCGGAAGAGTGTCTGGAGCAAGT
TGCAAAGCATTGGAATCAGACAGCACTTGAAGAGGGTGCAGCTGCGGGAGCTGTCCGAAGCAGAGGTGAG
GCAGCATCGGGAAGCCAGGCCCGCCCTGCTGACGTCCAGACTCCGCTTCAATCCCCAAGCCTGACGGGCTG
CGGCCGATTGTGAACATGGACTACGTGTTGGGAGCCAGAAGCTCCCGAGAGAAAAGAGGGCCGAGCGCT
TCACCTCGAGGGTGAAGGCACTGTTACGCTGCTCAACTACGAGCGGGCGCGGCCCGCCCGCTCCTGGG
CGCCTCTGTGCTGGGCTGGAGATATCCAGGGCCTGGCGCACCTTCTGCTGCTGTGGGGCCGAG
GACCCGCGCCTGAGCTGTACTTTGTCAAGGTGGATGTGACGGGCGCTACGACACCATCCCCAGGACA
GGCTCACGGAGGTCATCGCCAGCATCATCAAACCCAGAACACGTACTGCGTGCCTCGGTATGCCGTGGT
CCAGAAGGCCGCCATGGGCACGTCCGCAAGGCCTTCAAGAGCCACGTCTCTACCTTGACAGACCTCCAG
CCGTACATGCGACAGTTCGTGGCTCACCTGCAGGAGACCAGCCCGCTGAGGGATGCCGTGCTCATCGAGC
AGAGCTCTCCCTGAATGAGGCCAGCAGTGGCCTCTTCGACGTCTTCTATGCTTCAATGCCACCACGC
CGTGCATCAGGGGCAAGTCTACGTCCAGTCCAGGGGATCCCGCAGGGCTCCATCCTCTCCACGCTG
CTCTGCAGCCTGTGCTACGGCGACATGGAGAACAAGCTGTTTGGGGGATTCGGCGGGACGGGCTGCTCC
TGGGTTTGGTGGATGATTTCTTGTGGTGGTACACCTCACCTCACCCACGCGAAAACCTTCTCAGGACCT
GGTCCGAGGTGTCCCTGAGTATGGCTGCGTGGTGAACCTGCGGAAGACAGTGGTGAACCTCCCTGTAGAA
GACGAGGCCCTGGGTGGCACGGCTTTTGTTCAGATGCCGGCCACGGCCTATTCCCTGGTGGCGCTGC
TGCTGGATACCCGGACCTGGAGGTGCAGAGCGACTACTCCAGCTATGCCCGGACCTCCATCAGAGCCAG
TCTCACCTTCAACCGCGCTTCAAGGCTGGGAGGAACATGCGTCGCAAACCTTTGGGGTCTTGGCGGTG
AAGTGTACAGCCTGTTTCTGGATTTGCAGGTGAACAGCCTCCAGACGGTGTGCACCAACATCTACAAGA
TCCTCTGCTGCAGGCGTACAGGTTTACGCAATGTGTGCTGCAGCTCCCATTTTATCAGCAAGTTTGGAA
GAACCCACATTTTTCTGCGCGTCACTCTGACACGGCCTCCCTCTGCTACTCCATCCTGAAAGCCAAG
AACGCAGGGATGTGCTGGGGGCAAGGGCGCCCGCCCTCTGCCCTCCGAGGCCCTGCAGTGGCTGT
GCCACCAAGCATTCTGCTCAAGCTGACTCGACACCGTGTACCTACGTGCCACTCCTGGGGTCACTCAG
GACAGCCAGACGCACTGAGTCGGAAGCTCCCGGGGACGACGTGACTGCCCTGGAGGCCGAGCCAAC
CCGGCACTGCCCTCAGACTTCAAGACCATCCTGGAC

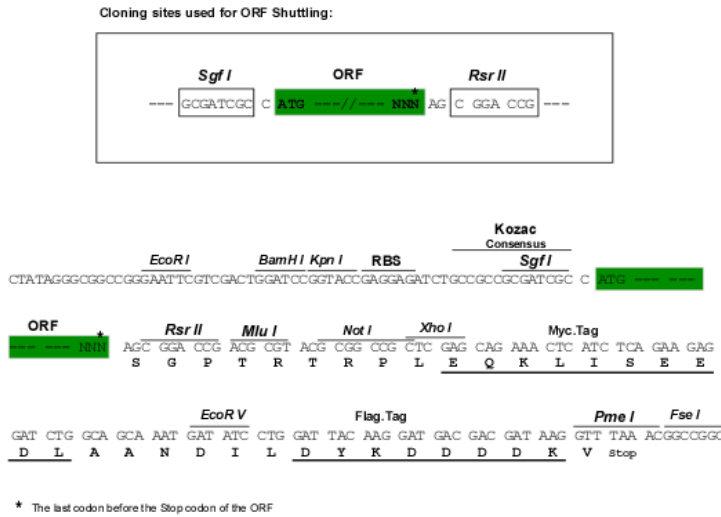
AGCGGACCGACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
TGGATTACAAGGATGACGACGA TAAGGTTTAA

Protein Sequence: >RC403771 representing NM_198253
 Red=Cloning site Green=Tags(s)

MPRAPRCRAVRSLLRSHYREVLPLATFVRRLLGPQGWRLVQRGDPAAFRALVAQCLVCPWDARPPPAAPS
 FRQVSKLKVVARVLRQLCERGAKNLAFGFALLDGARGPPEAF TTSVRSYLPNTVTDALRSGAWGLL
 LRRVGGDDVLVHLLARCALFVLVAPSCAYQVCGPPLYQLGAATQARPPPHASGPRRRLGCERAWNHSVREA
 GVPLGLPAPGARRRRGGASRSRLPLPKRPRRGAAPERP T PVGQGSWAHPGRTRGPSDRGFCVVSARPAE
 EATSLEGALSGTRHSHPSVGRQHHAGPPSTRP RPWDTPCPPVYAETKHFLYSSGDKEQLRPSFLLSSL
 RPSLTGARRLVETIFLGRPWMPGTPRRLPRLPQRYWQMRPLFLELLGNHAQCPYGVLLKTHCPLRAAVT
 PAAGVCAREKPGQSVAAPPEEDTPRRLVQLLRQHSSPWQVYGFVRACLRRLVPPGLWGSRHNNRRFLRN
 TKKFISLKGAKLSLQELTWKMSVRDCAWLRSPGVGCVPAAEHRLREEILAKFLHWLMSVYVVELLRSF
 FYVTETTFQKNRLFYRKSWSKLQSIGIRQHLKRVQLRELSEAEVRQHREARPALLTSRLRFIPKPDGL
 RPIVNDYVVGARTFRREKRAERLTSRVKALFVLYNERARRPGLLGASVLGLDDIHRARWTFVLRVRAQ
 DPPPELVFVKVDVTGAYDTIPQDRLTEVIASIIKPQNTYCVRRYAVVQKAAHGHVRKAFKSHVSTLTDLQ
 PYMRQFVAHLQETSPLRDAVVIEQSSSLNEASSGLFDVFLCFMCHHAVRIRGKSYVQCQGIPQGSILSTL
 LCSLCYGD MENKLFAGIRRDGLLLRLVDDFLLVTPHLTHAKTFLRTLVRGVPEYGCVVNLRKTVVNFVPE
 DEALGGTAFVQMPAHGLFPWCGLLLDTRTLEVQSDYSSYARTSIRASLTFNRGFKAGRMRRKLFVGLRL
 KCHSLFDLQVNSLQTVCTNIYKILLQAYRFHACVLQLPFHQVWKNPTFFLRVISDTASLCYSILKAK
 NAGMSLGAKGAAGPLPSEAVQWLCHQAFLLKLTRHRVTVYVPLLGLSRTAQTQLSRKLPGTTLTALEAAAN
 PALPSDFKTILD

SGPTRRRLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-RsrII
 Cloning Scheme:



OTI Disclaimer:	<p>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 or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
OTI Annotation:	<p>This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.</p>
Components:	<p>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).</p>
RefSeq:	<p>NP_937983</p>
RefSeq Size:	<p>3396 bp</p>
RefSeq ORF:	<p>3399 bp</p>
Locus ID:	<p>7015</p>
Cytogenetics:	<p>5p15.33</p>
Protein Families:	<p>Druggable Genome</p>
MW:	<p>124.5 kDa</p>
Gene Summary:	<p>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]</p>