

Product datasheet for RC231464L3

OriGene Technologies, Inc.

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Telomerase reverse transcriptase (TERT) (NM_001193376) Human Tagged Lenti ORF Clone

Product data:

Product Type: Expression Plasmids

Product Name: Telomerase reverse transcriptase (TERT) (NM_001193376) Human Tagged Lenti ORF Clone

Tag: Myc-DDK

Symbol: Telomerase reverse transcriptase

Synonyms: CMM9; DKCA2; DKCB4; EST2; hEST2; hTRT; PFBMFT1; TCS1; TP2; TRT

Mammalian Cell

Selection:

Puromycin

Vector: pLenti-C-Myc-DDK-P2A-Puro (PS100092)

E. coli Selection: Chloramphenicol (34 ug/mL)

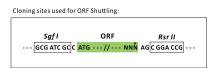
ORF Nucleotide

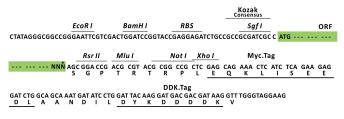
The ORF insert of this clone is exactly the same as(RC231464).

Sequence:

Restriction Sites: Sgfl-Rsrll

Cloning Scheme:





^{*} The last codon before the Stop codon of the ORF.

ACCN: NM_001193376

ORF Size: 3207 bp





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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: <u>NM 001193376.1</u>

 RefSeq Size:
 3829 bp

 RefSeq ORF:
 3210 bp

 Locus ID:
 7015

 UniProt ID:
 014746

Protein Families: Druggable Genome

5p15.33

MW: 120 kDa

Cytogenetics:

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]