

Telomerase reverse transcriptase (TERT), Recombinant Protein

Cat *RP01799*

Size 0.05 mg (*E-Coli*)/ 0.05 mg (*Yeast*)/ 0.2 mg (*E-Coli*)/ 0.05 mg
(*Baculovirus*)/ 0.5 mg (*E-Coli*)/ 0.2 mg (*Yeast*)/ 0.05 mg

Species (Mammalian-Cell)/ 0.1 mg (*Baculovirus*)/ 0.5 mg (*Yeast*)/ 1 mg
(*E-Coli*)/ 0.5 mg (*Baculovirus*)/ 0.1 mg (Mammalian-Cell)/ 1 mg
Arabidopsis thaliana (Mouse ear cress)
(*Yeast*)/ 1 mg (*B*)

Full Product Name

Recombinant Arabidopsis thaliana Telomerase reverse transcriptase (TERT) , partial

Product Gene Name

TERT recombinant protein

Product Synonym Gene Name

TERT

Purity

Greater or equal to 85% purity as determined by SDS-PAGE. (lot specific)

Sequence

LVDDAEAESS RKKLSKFRFL PKANGVRMVL DFSSSSRSQS LRDTHAVLKD IQLKEPDVLG SSVFDHDDFY
RNLCPYLIHL RSQSGELPPL YFVVADVFA FDSVDQGKLL HVIQSFLKDE YILNRCRLVC CGKRSNWVNK
ILVSSDKNSN FSRFTSTVPY NALQSIVVDK GENHRVRKKD LMVWIGNMLK NNMLQLDKSF YVQIAGIPQG
HRLSSLLCCF YYGHLERTLI YPFLEEASKD VSSKECSREE ELIPTSYKL LRFIDDYLFV STSRDQASSF
YHRLKHGFKD YNCFMNETKF CINFEDKEEH RCSSNRMFVG DNGVPFVRWT GLLI

Sequence Positions

596-929. Partial, provide the Reverse transcriptase Domain

Format

Lyophilized or liquid (Format to be determined during the manufacturing process)

Host

E Coli or Yeast or Baculovirus or Mammalian Cell

Molecular Weight

130,580 Da

Storage

Store at -20°C. For long-term storage, store at -20°C or -80°C. Store working aliquots at 4°C for up to one week.
Repeated freezing and thawing is not recommended.

Protein Family

Telomerase reverse transcriptase

NCBI Accession

NP_197187.1

NCBI GI

15237420

NCBI GenBank Nucleotide

NM_121691.4

FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY

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NCBI GeneID
831548 (Mammalian-Cell)/ 0.1 mg (*Baculovirus*)/ 0.5 mg (*Yeast*)/ 1 mg
(*E-Coli*)/ 0.5 mg (*Baculovirus*)/ 0.1 mg (Mammalian-Cell)/ 1 mg
(*Yeast*)/ 1 mg (*B*

NCBI Official Full Name

telomerase reverse transcriptase

NCBI Official Symbol

TERT

NCBI Official Synonym Symbols

ATTERT; F5E19.190; F5E19_190; telomerase reverse transcriptase

NCBI Protein Information

telomerase reverse transcriptase

NCBI Summary

Encodes the catalytic subunit of telomerase reverse transcriptase. Involved in telomere homeostasis. Homozygous double mutants with ATR show gross morphological defects over a period of generations. TERT shows Class II telomerase activity in vitro, indicating that it can initiate de novo telomerase synthesis on non-telomeric DNA, often using a preferred position within the telomerase-bound RNA.

UniProt Gene Name

TERT

UniProt Synonym Gene Names

AtTERT

UniProt Protein Name

Telomerase reverse transcriptase

UniProt Primary Accession

Q9SPU7

UniProt Secondary Accession

Q9SE99

UniProt Related Accession

Q9SPU7

UniProt Comments

Telomerase is a ribonucleoprotein enzyme essential for the replication of chromosome termini in most eukaryotes. It elongates telomeres. It is a reverse transcriptase that adds simple sequence repeats to chromosome ends by copying a template sequence within the RNA component of the enzyme. Required to prevent genome instability induced by breakage-fusion-bridge (BFB) cycles. Can extend completely non-telomeric sequences using RNA template in vitro.

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