

Recombinant Human TERT Protein, His-tagged

Cat. No. TERT-32H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant partial human TERT protein (281-436aa) with a N-terminal 6xHis tag was expressed in E.coli.
Species	Human
Source	E.coli
ProteinLength	281-436 a.a.
Description	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.
Molecular Mass	22.7kDa

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AA Sequence	EATSLEGALSGTRHSHPSVGRQHHAGPPSTSRPPRPWDTPCPPVYAETKHFLYSS GDKEQLRPSFLLSSLRPSLTGARRLVETIFLGSRPWMPGTPRRLPRLPQRYWQMRP LFLELLGNHAQCPYGVLLKTHCPLRAAVTPAAGVCAREKPQGSVA
Purity	Greater than 85% as determined by SDS-PAGE.
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4 centigrade for up to one week.
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20 centigrade/-80 centigrade. The shelf life of lyophilized form is 12 months at -20 centigrade/-80 centigrade.
Storage Buffer	Tris-based buffer,50% glycerol

GENE INFORMATION

Gene Name	TERT telomerase reverse transcriptase [Homo sapiens (human)]
Official Symbol	TERT
Synonyms	TERT; telomerase reverse transcriptase; TP2; TRT; CMM9; EST2; TCS1; hTRT; DKCA2; DKCB4; hEST2; PFBMFT1; telomerase reverse transcriptase; telomerase catalytic subunit; telomerase-associated protein 2; EC 2.7.7.49
Gene ID	7015
mRNA Refseq	NM_198253
Protein Refseq	NP_937983

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MIM	187270
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UniProt ID	O14746
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