

## Recombinant Human Tert

Cat. No. Tert-550H Lot. No. (See product label)

### SPECIFICATION

**Product Overview** Telomerase Human Recombinant encoding 174-341 amino acids expressed in E.coli. Telomerase is purified by proprietary chromatographic techniques.

**Species** Human

**Source** E.coli

**ProteinLength** 174-341 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.

**Physical Appearance** Sterile filtered liquid.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

<b>Formulation</b>	Telomerase protein at 100µg/ml in 50mM Tris-Acetate, pH-7.5, 1mM EDTA and 20% Glycerol.
<b>Stability</b>	Store vial at -20°C to -80°C. When stored at the recommended temperature, this protein is stable for 12 months. Please avoid freeze-thaw cycles.
<b>Applications</b>	1. ELISA 2. Inhibition Assays 3. Western Blotting Characterization
<b>OfficialSymbol</b>	TERT

## GENE INFORMATION

<b>Gene Name</b>	<a href="#">TERT telomerase reverse transcriptase [ Homo sapiens ]</a>
<b>Synonyms</b>	TERT; telomerase reverse transcriptase; TP2; TRT; EST2; TCS1; hTRT; DKCA2; DKCB4; hEST2; PFBMFT1; telomerase catalytic subunit; telomerase-associated protein 2; EC 2.7.7.49
<b>Gene ID</b>	<a href="#">7015</a>
<b>mRNA Refseq</b>	<a href="#">NM_001193376</a>
<b>Protein Refseq</b>	<a href="#">NP_001180305</a>
<b>MIM</b>	<a href="#">187270</a>
<b>UniProt ID</b>	<a href="#">O14746</a>
<b>Chromosome Location</b>	5p15.33

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA



<b>Pathway</b>	Cell Cycle; Chromosome Maintenance; Extension of Telomeres; HIF-1-alpha transcription factor network
<b>Function</b>	metal ion binding; protein homodimerization activity; telomerase activity; telomeric DNA binding; telomeric RNA binding; telomeric template RNA reverse transcriptase activity; telomeric template RNA reverse transcriptase activity

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA