

Telomerase Reverse Transcriptase (TERT) Active Protein | TERT active protein

Active Telomerase Reverse Transcriptase (TERT)

CATALOG # AAA161880	HOST E Coli	APPLICATIONS Activity Assay, Cell Culture
-------------------------------	-----------------------	---

PRODUCT SYNONYMS

Telomerase Reverse Transcriptase (TERT); Active Telomerase Reverse Transcriptase (TERT); Telomerase Reverse Transcriptase; EST2; TCS1; TP2; TRT; hEST2; Telomerase catalytic subunit; Telomerase-associated protein 24; TERT active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	Greater than 90% by SDS-PAGE
Form/Format	Freeze-dried powder; PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Sequence	Arg787~Arg 1084
Applicable Applications for TERT active protein	Activity Assay, Cell Culture
Species	Human
Expression System	Prokaryotic expression
Tag	N-terminal His and GST Tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method)
Isoelectric Point	8.8
Research Area	Enzyme & Kinase, Tumor immunity, Developmental science, Genetic science
Preparation and Storage	Store at 2-8 degree C for one month, -80 degree C for 12 months

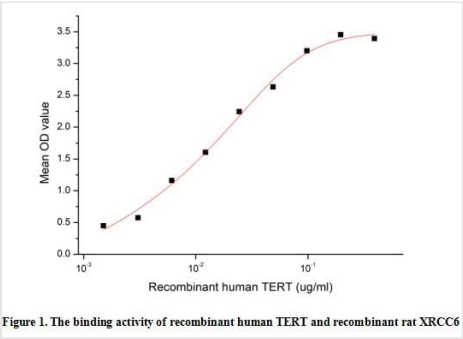


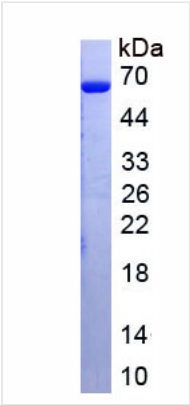
Figure 1. The binding activity of recombinant human TERT and recombinant rat XRCC6

Bioactivity

Telomerase reverse transcriptase (TERT) is a subunit of the enzyme complex telomerase, which adds nucleotides to the ends of telomeres as they become shortened during cell division .Telomerase complex plays a key role in cancer formation by telomere dependent or independent mechanisms. According to statistics, human telomerase reverse transcriptase (h-TERT) is overexpressed in more than 85% of tumors with diverse histologies, with little expression in normal tissues. Expression of h-TERT correlates with activity of telomerase, which is required for the capacity for limitless replication, a hallmark of cancer. The X-Ray Repair Cross Complementing 6 (XRCC6) is high affinity receptor for TERT, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human TERT and recombinant rat XRCC6. Briefly, TERT was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 ul were then transferred to XRCC6-coated microtiter wells and incubated for 1h at 37 degree C. Wells were washed with PBST and incubated for 1h with anti-TERT pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37 degree C, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37 degree C. Finally, add 50 uL stop solution to the wells and read at 450/630 nm immediately. The binding activity of recombinant TERT and recombinant rat XRCC6 was shown in Figure 1, the EC50 for this effect is 0.009 ug/mL.

SDS-PAGE

Figure. SDS-PAGE



ADDITIONAL INFORMATION

Product Categories/Family for TERT active protein	Active proteins
---	-----------------

NCBI AND UNIPROT INFORMATION

NCBI GI #	301129200
NCBI GeneID	7015
NCBI Accession #	NP_001180305.1
NCBI GenBank Nucleotide #	NM_001193376.1
UniProt Accession #	O14746; O14783; Q2XS35; Q8N6C3; Q8NG46
Molecular Weight	126,997 Da
NCBI Official Full Name	telomerase reverse transcriptase isoform 2
NCBI Official Synonym Full Names	telomerase reverse transcriptase
NCBI Official Symbol	TERT
NCBI Official Synonym Symbols	TP2; TRT; CMM9; EST2; TCS1; hTRT; DKCA2; DKCB4; hEST2; PFBMFT1
NCBI Protein Information	telomerase reverse transcriptase; telomerase catalytic subunit; telomerase-associated protein 2
UniProt Protein Name	Telomerase reverse transcriptase
UniProt Gene Name	TERT
UniProt Synonym Gene Names	EST2; TCS1; TRT; TP2

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com

Online datasheet: <https://stage.aaabiotech.com/e-coli-active-protein/telomerase-reverse-transcriptase-tert/161880>