

Recombinant Human TERT Protein, His-GST-tagged

Cat. No. TERT-438H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human TERT Protein(Arg787~Arg1084), fused with N-terminal His and GST tag, was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	Arg787~Arg1084
Tag	N-His-GST
Form	PBS, pH7.4, containing 0.01% SKL, 5%Trehalose.
Bio-activity	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

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μl were then transferred to XRCC6-coated microtiter wells and incubated for 1h at 37°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°C, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50 μL 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.

Molecular Mass	63.4kDa
Endotoxin	<1.0EU per 1μg (determined by the LAL method).
Purity	>90%
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 month.
Reconstitution	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

Gene Name	TERT telomerase reverse transcriptase [Homo sapiens]
Official Symbol	TERT
Synonyms	TERT; telomerase reverse transcriptase; EST2; hEST2; TCS1; TP2; TRT; telomerase catalytic subunit; telomerase-associated protein 2; hTRT; DKCA2; DKCB4;
Gene ID	7015

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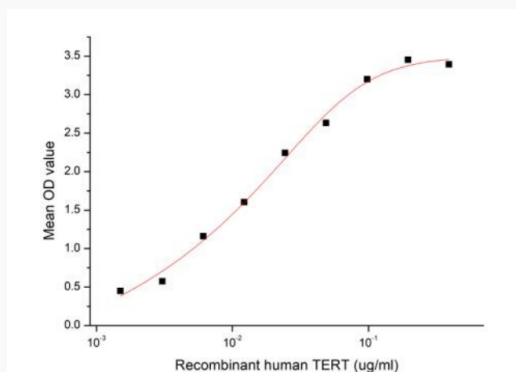
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mRNA Refseq [NM_001193376](#)

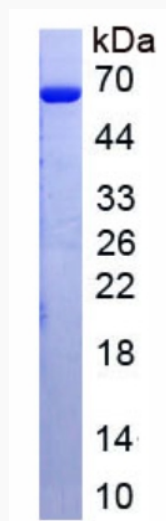
Protein Refseq [NP_001180305](#)

UniProt ID [O14746](#)

Activity



SDS-PAGE



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