Datasheet

Product Name	Recombinant Human Telomerase reverse transcriptase(TERT),partial
Catalog Number	**AAA18651**
Expression host	*E.coli*
Product Info	N-terminal 6xHis-tagged
Storage Buffer	0.2 μm sterile filtered 10 mM Tris-HCl,1 mM EDTA, pH 8.0, 50% glycerol
Storage	Store at -20℃, for extended storage, conserve at -20℃ or -80℃.
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4℃ for up to one week.
Relevance	Telomerase is a ribonucleoprotein enzyme essential for the replication of chromosome termini in most eukaryotes. Active in progenitor and cancer cells. Inactive, or very low activity, in normal somatic cells. Catalytic component of the teleromerase holoenzyme complex whose main activity is the elongation of telomeres by acting as a reverse transcriptase that adds simple sequence repeats to chromosome ends by copying a template sequence within the RNA component of the enzyme. Catalyzes the RNA-dependent extension of 3'-chromosomal termini with the 6-nucleotide telomeric repeat unit, 5'-TTAGGG-3'. The catalytic cycle involves primer binding, primer extension and release of product once the template boundary has been reached or nascent product translocation followed by further extension. More active on substrates containing 2 or 3 telomeric repeats. Telomerase activity is regulated by a number of factors including telomerase complex-associated proteins, chaperones and polypeptide modifiers. Modulates Wnt signaling. Plays important roles in aging and antiapoptosis.
AA sequence	EATSLEGALSGTRHSHPSVGRQHHAGPPSTSRPPRPWDTPCPPVYAETKHFLY SSGDKEQLRPSFLLSSLRPSLTGARRLVETIFLGSRPWMPGTPRRLPRLPQRYW QMRPLFLELLGNHAQCPYGVLLKTHCPLRAAVTPAAGVCAREKPQGSVA
References	"Expression profile of a gamma-deletion variant of the human telomerase reverse transcriptase gene." Hisatomi H., Ohyashiki K., Ohyashiki J.H., Nagao K., Kanamaru T., Hirata H., Hibi N., Tsukada Y. Neoplasia 5:193-197(2003)

Certificate of Analysis

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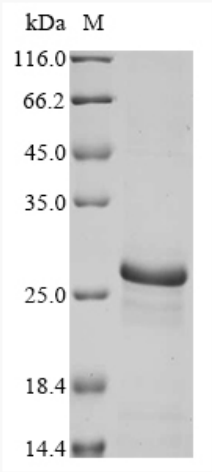
Batch Number	YD04067b1g5		
Nature	Human TERT-(AA 281-436)-**O14746**-Partial Protein		
Purification	Affinity purified using IMAC		
Recommended Storage	Short term	2 to 8 ℃, one week from the date of receipt	
	Long term	-20 to -80 ℃, six months from the date of receipt	
Form	Liquid		
Date of detection	2022.12.14		
Test Items	**Specifications**		**Results**
Appearance	Clear Solution		pass
Concentration	0.1-5 mg/ml, by the Bradford Method.		0.45 mg/ml
Purity	≥85%, by SDS-PAGE quantitative densitometry by Coomassie Blue Staining.		87%
Molecular Weight	Predicted band size: 22.7 kDa		Observed band size: 27 kDa The reducing (R) protein migrates as 27 kDa in SDS-PAGE may be due to molecular structure of protein.

Electrophoretic parameters	(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.	
Aseptic Processing	0.2 μm sterile filtered	
Endotoxin Level	<1.0 EU per 1μg of the protein by the LAL method.	pass
Activity	Not tested	
Conclusion	pass	