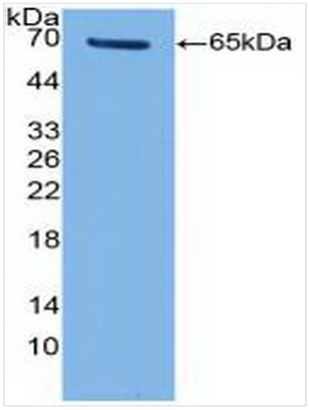
Telomerase Reverse Transcriptase (TERT) Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	Telomerase Reverse Transcriptase (TERT), Polyclonal Antibody
Full Product Name	Polyclonal Antibody to Telomerase Reverse Transcriptase (TERT)
Product Gene Name	anti-TERT antibody
Immunogen Sequence	Antigen: The target protein is fused with two N-terminal Tags, His-tag and its sequence is listed below. MSPILGYWKI KGLVQPTRLL LEYLEEKYEE HLYERDEGDK WRNKKFELGL EFPNLPYYID GDVKLTQSMA IIRYIADKHN MLGGCPKERA EISMLEGAVL DIRYGVSRIA YSKDFETLKV DFLSKLPEML KMFEDRLCHK TYLNGDHVTH PDFMLYDALD VVLYMDPMCL DAFPKLVCFK KRIEAIPQID KYLKSSKYIA WPLQGWQATF GGGDHPPKSD GSTSGSGHHH HHHSAGLVPR GSTAIGMKET AAAKFERQHM DSPDLGTGGG SGIEGRGSMG YRGSEF-RDA V VIEQSSSLNE ASSGLFDVFL RFMCHHAVRI RGKSYVQCQG IPQGSILSTL LCSLCYGDME NKLFAGIRRD GLLLRLVDDF LLVTPHLTHA KTFLRTLVRG VPEYGCVVNL RKTVVNFPVE â€€ DEALGGTAFV QMPAHGLFPW CGLLLDTRTL EVQSDYSSYA RTSIRASLTF NRGFKAGRNM RRKLFGVLRL KCHSLFLDLQ VNSLQTVCTN IYKILLLQAY RFHACVLQLP FHQQVWKNPT FFLRVISDTA SLCYSILKAK NAGMSLGAKG AAGPLPSEAV QWLCHQAFLL KLTR
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as solution form in PBS, pH7.4, containing 0.02% NaN3,50% glycerol.
Purity/Purification	Affinity Chromatography
Concentration	500ug/mL (lot specific)
Specificity	The antibody is a rabbit polyclonal antibody raised against TERT. It has been selected for its ability to recognize TERT in immunohistochemical staining andwestern blotting.
Preparation and Storage	Store at 4 degree C for frequent use. Stored at -20 degree C to -80 degree C in a manual defrost freezer for one year without detectable loss of activity. Avoid repeated freeze-thaw cycles.
Matching Pairs	Unconjugated Antibody: TERT (MBS2001550) APC-CY7 Conjugated Antibody: TERT (MBS2064196)
Matching Pairs	Unconjugated Antibody: TERT (MBS2001550) PE Conjugated Antibody: TERT (MBS2064197)
Matching Pairs	Unconjugated Antibody: TERT (MBS2001550) APC Conjugated Antibody: TERT (MBS2064198)
Matching Pairs	Unconjugated Antibody: TERT (MBS2001550) Cy3 Conjugated Antibody: TERT (MBS2064199)
Matching Pairs	Unconjugated Antibody: TERT (MBS2001550) FITC Conjugated Antibody: TERT (MBS2064200)
Matching Pairs	Unconjugated Antibody: TERT (MBS2001550) HRP Conjugated Antibody: TERT (MBS2064201)
Matching Pairs	Unconjugated Antibody: Telomerase Reverse Transcriptase (TERT) (MBS2001550) APC-CY7 Conjugated Secondary Antibody: Immunoglobulin G (MBS2090675)
Matching Pairs	Unconjugated Antibody: Telomerase Reverse Transcriptase (TERT) (MBS2001550) Unconjugated Secondary Antibody: Immunoglobulin G (MBS2090678)

Matching Pairs	Unconjugated Antibody: TERT (MBS2001550) Biotin Conjugated Antibody: TERT (MBS2094311)
Molecular Weight	88,965 Da
OMIM	AF018167 mRNA
3D Structure	ModBase 3D Structure for O14746
Supply Chain Verification	Manufactured in a lab with traceable raw materials. Bulk orders can typically be prepared to the customer's specifications, please inquire.
Immunogen	Recombinant TERT (Arg787~Arg1084) expressed in E.coli.
Cross Reactivity	Human
Conjugated Antibody	The APC conjugated antibody version of this item is also available as catalog #MBS2064198
ISO Certification	Manufactured in an ISO 9001:2015 and ISO 13485:2016 Certified Laboratory.
Applications Tested/Suitable for anti-TERT antibody	Immunocytochemistry (ICC), Immunohistochemistry (IHC) - Formalin/Paraffin, ELISA (EIA), Western Blot (WB)
Application Notes for anti-TERT antibody	Western blotting: 1:100-400 Immunocytochemistry in formalin fixed cells: 1:100-500 Immunohistochemistry in formalin fixed frozen section: 1:100-500 Immunohistochemistry in paraffin section: 1:50-200 Enzyme-linked Immunosorbent Assay: 1:100-200
Related Product Information for anti-TERT antibody	MBS2001550 is an antibody targeting TERT. Also known as Polyclonal Antibody to Telomerase Reverse Transcriptase (TERT). Reactive in Human. Host: Rabbit.
Other Notes	Small volumes of anti-TERT antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



Western Blot (WB) of anti-TERT antibody
Western Blot: Sample: Recombinant TERT, Human.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for TERT. It may not necessarily be applicable to this product.

NCBI GI #	301129200
NCBI GeneID	7015
NCBI Accession #	NP_001180305.1
UniProt Primary Accession #	O14746
UniProt Secondary Accession #	O14783; Q2XS35; Q8N6C3; Q8NG38; Q8NG46

UniProt Related Accession #	O14746
GenBank Nucleotide #	NM_001193376.1
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
UniProt Protein Name	Telomerase reverse transcriptase
UniProt Synonym Protein Names	HEST2; Telomerase catalytic subunit; Telomerase-associated protein 2; TP2
Protein Family	Telomerase reverse transcriptase
UniProt Gene Name	TERT
UniProt Synonym Gene Names	EST2; TCS1; TRT; TP2
NCBI Protein Information	telomerase reverse transcriptase
NCBI Summary for TERT	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. [provided by RefSeq, Jul 2008]

UniProt Comments for TERT	TERT: telomerase reverse transcriptase is a ribonucleoprotein polymerase that maintains telomere ends by addition of the telomere repeat TTAGGG. The holoenzyme consists of TERT 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 isoforms have been identified, although the full-length sequence of some variants has not been determined. Protein type: DNA-binding; EC 2.7.7.49; Nucleolus; Transferase Chromosomal Location of Human Ortholog: 5p15.33 Cellular Component: chromosome, telomeric region; nuclear chromosome, telomeric region; nuclear telomere cap complex; nucleolus; nucleoplasm; nucleus; plasma membrane; PML body; telomerase catalytic core complex; telomerase holoenzyme complex; TERT-RMRP complex Molecular Function: chaperone binding; DNA binding; identical protein binding; metal ion binding; nucleotidyltransferase activity; protein binding; protein C-terminus binding; protein homodimerization activity; protein N-terminus binding; RNA binding; RNA-directed DNA polymerase activity; RNA-directed RNA polymerase activity; telomerase activity; telomerase RNA binding; telomeric DNA binding; telomeric template RNA reverse transcriptase activity; template-free RNA nucleotidyltransferase; tRNA binding Biological Process: beta-catenin-TCF complex assembly; cellular response to hypoxia; DNA biosynthetic process; DNA strand elongation; mitochondrion organization; negative regulation of cellular senescence; negative regulation of endothelial cell apoptotic process; negative regulation of extrinsic apoptotic signaling pathway in absence of ligand; negative regulation of gene expression; negative regulation of neuron apoptosis; positive regulation of angiogenesis; positive regulation of G1/S transition of mitotic cell cycle; positive regulation of glucose import; positive regulation of hair cycle; positive regulation of nitric-oxide synthase activity; positive regulation of protein binding; positive regulation of protein localization to nucleolus; positive regulation of stem cell proliferation; positive regulation of vascular associated smooth muscle cell migration; positive regulation of vascular smooth muscle cell proliferation; positive regulation of Wnt receptor signaling pathway; regulation of protein stability; replicative senescence; response to cadmium ion; RNA biosynthetic process; RNA interference, production of siRNA; RNA-dependent DNA replication; telomere maintenance; telomere maintenance via telomerase Disease: Aplastic Anemia; Dyskeratosis Congenita, Autosomal Dominant, 1; Pulmonary Fibrosis, Idiopathic
Research Articles on TERT	**1.** Data show that both 8-oxoguanine (8oxoG) and thymine glycol (Tg) enhance telomerase binding and extension activity to the same degree.
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