Telomerase Reverse Transcriptase (TERT) ELISA Kit for Mouse

PRODUCT OVERVIEW

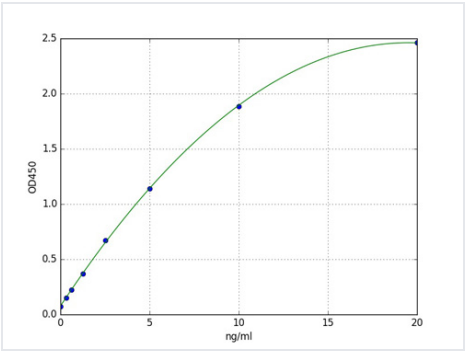
Product Name	Telomerase reverse transcriptase (Tert), ELISA Kit
Full Product Name	Mouse Telomerase reverse transcriptase ELISA Kit
Product Gene Name	Tert elisa kit
Product Synonym Names	Tert/TERT (Telomerase Reverse Transcriptase)/CMM9/DKCA2/DKCB4/EST2/PFBMFT1/TCS1/TP2/TRT/Telomerase-associated protein 2/Telomerase catalytic subunit
Species Reactivity	Mouse
Assay Type	Sandwich ELISA, Double Antibody
Samples	Serum, Plasma, Cell Culture Supernatant, cell or tissue lysate, Other liquid samples
Detection Range	0.313-20ng/ml
Sensitivity	0.188ng/ml
Preparation and Storage	Store entire kit at 2-8C for short-term. For longer-term, please store the microplate & standard at -20C, while the remaining reagents can be stored at 2-8C
Molecular Weight	127,978 Da
3D Structure	ModBase 3D Structure for O70372
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Related Product Information for Tert elisa kit	Principle of the Assay||This kit was based on sandwich enzyme-linked immune-sorbent assay technology. anti-Mouse TERT antibody was pre-coated onto 96-well plates. And the biotin conjugated anti-Mouse TERT antibody was used as detection antibodies. The standards, test samples and biotin conjugated detection antibody were added to the wells subsequently, and wash with wash buffer. HRP-Streptavidin was added and unbound conjugates were washed away with wash buffer. TMB substrates were used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the Mouse TERT amount of sample captured in plate. Read the O.D. absorbance at 450nm in a microplate reader, and then the concentration of Mouse TERT can be calculated.
Other Notes	Small volumes of Tert elisa kit 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.
Searchable Terms for Tert purchase	MBS760070 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Telomerase reverse transcriptase (Tert) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing Tert. The ELISA analytical biochemical technique of the MBS760070 kit is based on Tert antibody-Tert antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect Tert antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, Tert. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).

Typical Data & Standard Curve

Results of a typical standard run of a Mouse TERT ELISA Kit are shown below. This standard curve was generated at our lab for demonstration purpose only. Each user should obtain their own standard curve as per experiment. (N/A=not applicable)

X	ng/ml	0	0.313	0.625	1.25	2.5	5	10	20
Y	OD450	0.012	0.205	0.419	0.774	1.096	1.269	1.794	2.123

Typical Testing Data of Tert elisa kit



Typical Standard Curve of Tert elisa kit

ADDITIONAL DETAILS

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

UniProt Primary Accession #	O70372
UniProt Related Accession #	O70372
Protein Family	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: Nucleolus; EC 2.7.7.49; Transferase; DNA-binding Chromosomal Location of Human Ortholog: 5p15.33 Cellular Component: chromosome, telomeric region; nuclear chromosome, telomeric region; nuclear telomere cap complex; nucleolus; nucleoplasm; nucleus; PML body; telomerase holoenzyme complex Molecular Function: DNA binding; metal ion binding; nucleotidyltransferase activity; protein binding; protein homodimerization activity; RNA binding; RNA-directed DNA polymerase activity; RNA-directed RNA polymerase activity; telomerase activity; telomeric DNA binding; telomeric template RNA reverse transcriptase activity; tRNA binding Biological Process: DNA strand elongation; mitochondrion organization and biogenesis; positive regulation of hair cycle; positive regulation of nitric-oxide synthase activity; positive regulation of protein binding; positive regulation of Wnt receptor signaling pathway; regulation of protein stability; 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.** TERT contributes to preserve Epstein-Barr virus latency in B cells mainly through the NOTCH2/BAFT pathway.
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