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 (TERT) ELISA Kit
Product Gene Name	TERT elisa kit
Product Synonym Names	EST2; TCS1; TP2; TRT; hEST2; telomerase catalytic subunit
Species Reactivity	Mouse
Assay Type	Quantitive Sandwich
Samples	Serum, Plasma, Other biological fluids
Detection Range	0.31-20ng/mL
Sensitivity	0.156ng/mL
Specificity	This assay has high sensitivity and excellent specificity for detection of Mouse TERT. No significant cross-reactivity or interference between Mouse TERT and analogues was observed.
Preparation and Storage	Store at 2-8 degree C. Please refer to Instruction Manual.
3D Structure	ModBase 3D Structure for O70372
Detection Wavelength	450nm
Assay Duration	1-4.5h
Sample Volume	1-200uL
Precision	Intra-assay Precision (Precision within an assay) Three samples of known concentration were tested twenty times on one plate to assess intra-assay precision. Inter-assay Precision (Precision between assays) Three samples of known concentration were tested in forty separate assays to assess inter-assay precision. CV (%) = SD/meanX100 Intra-Assay: CV
Test Principle	This assay employs a two-site sandwich ELISA to quantitate TERT in samples. An antibody specific for TERT has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and any TERT present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated antibody specific for TERT is added to the wells. After washing, Streptavidin conjugated Horseradish Peroxidase (HRP) is added to the wells. Following a wash to remove any unbound avidin-enzyme reagent, a substrate solution is added to the wells and color develops in proportion to the amount of TERT bound in the initial step. The color development is stopped and the intensity of the color is measured.
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for TERT elisa kit	MBS2804510 is a ready-to-use microwell, strip-or-full 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 MBS2804510 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(%).

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.

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
Protein Family	Telomerase reverse transcriptase
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: Transferase; Nucleolus; DNA-binding; EC 2.7.7.49 Chromosomal Location of Human Ortholog: 5p15.33 Cellular Component: nucleoplasm; chromosome, telomeric region; PML body; nuclear telomere cap complex; telomerase holoenzyme complex; nucleolus Molecular Function: telomerase activity; protein binding; protein homodimerization activity; RNA-directed RNA polymerase activity; DNA binding; metal ion binding; telomeric DNA binding; RNA-directed DNA polymerase activity; telomeric template RNA reverse transcriptase activity; tRNA binding; nucleotidyltransferase activity Biological Process: mitochondrion organization and biogenesis; DNA strand elongation; RNA-dependent DNA replication; positive regulation of nitric-oxide synthase activity; telomere maintenance via telomerase; age-dependent telomere shortening; positive regulation of Wnt receptor signaling pathway; telomere maintenance; RNA interference, production of siRNA Disease: Pulmonary Fibrosis, Idiopathic; Aplastic Anemia; Dyskeratosis Congenita, Autosomal Dominant, 1
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