
Product Name: TERT (phospho Ser227) Rabbit Polyclonal Antibody**Catalog #: APRab05544**

For research use only.

Summary

Description	Rabbit polyclonal Antibody
Host	Rabbit
Application	ICC/IF,ELISA
Reactivity	Human,Rat,Mouse
Conjugation	Unconjugated
Modification	Phosphorylated
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Concentration	1mg/ml
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
Purification	Affinity purification

Application

Dilution Ratio ICC/IF 1:200-1:1000,ELISA 1:5000-1:20000

Molecular Weight

Antigen Information

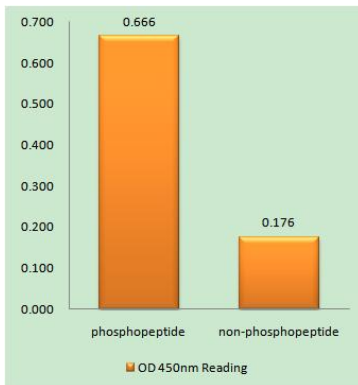
Gene Name	TERT
Alternative Names	TERT; EST2; TCS1; TRT; Telomerase reverse transcriptase; HEST2; Telomerase catalytic subunit; Telomerase-associated protein 2; TP2
Gene ID	7015.0
SwissProt ID	O14746
Immunogen	The antiserum was produced against synthesized peptide derived from human Telomerase around the phosphorylation site of Ser227. AA range:196-245

Background

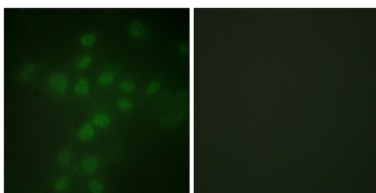
Telomerase is a ribonucleoprotein polymerase that maintains telomere ends by addition of the telomere repeat TTAGGG. The enzyme consists of a protein component with reverse transcriptase activity, encoded by this gene, and an RNA component which serves as a template for the telomere repeat. Telomerase 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 activity: Deoxynucleoside triphosphate + DNA(n) = diphosphate + DNA(n+1).,disease:Activation of telomerase has been implicated in cell immortalization and cancer cell pathogenesis.,disease:Defects in TERT are a cause of dyskeratosis congenita autosomal dominant (ADDKC) [MIM:127550]; also known as dyskeratosis congenita Scoggins type. ADDKC is a rare, progressive bone marrow failure syndrome characterized by the triad of reticulated skin hyperpigmentation, nail dystrophy, and mucosal leukoplakia. Early mortality is often associated with bone marrow failure, infections, fatal pulmonary complications, or malignancy.,disease:Defects in TERT are associated with susceptibility to aplastic anemia (AA) [MIM:609135]. AA is a rare disease in which the reduction of the circulating blood cells results from damage to the stem cell pool in bone marrow. In most patients, the stem cell lesion is caused by an autoimmune attack. T-lymphocytes, activated by an endogenous or exogenous, and most often unknown antigenic stimulus, secrete cytokines, including IFN-gamma, which would in turn be able to suppress hematopoiesis.,disease:Defects in TERT increases susceptibility to idiopathic pulmonary fibrosis [MIM:178500]. Idiopathic pulmonary fibrosis is an adult-onset, lethal, scarring lung disease of unknown etiology. Its clinical features are shortness of breath, radiographically evident diffuse pulmonary infiltrates, and varying degrees in inflammation, fibrosis, or both on biopsy. It is rapidly progressive and characterized by sequential acute lung injury with subsequent scarring and endstage lung disease.,disease:Genetic variations in TERT are associated with coronary artery disease (CAD).,function:Telomerase is a ribonucleoprotein enzyme essential for the replication of chromosome termini in most eukaryotes. It elongates telomeres. It is a reverse transcriptase that adds simple sequence repeats to chromosome ends by copying a template sequence within the RNA component of the enzyme.,similarity:Belongs to the reverse transcriptase family. Telomerase subfamily.,similarity:Contains 1 reverse transcriptase domain.,subunit:Catalytic subunit of the telomerase holoenzyme complex at least composed of TERT, DKC1, WDR79/TCAB1, NOP10, NHP2, GAR1, TEP1, EST1A, POT1 and a telomerase RNA template component (TERC). Interacts with PINX1 and MCRS1.,

Research Area

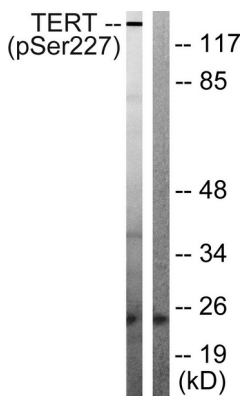
Image Data



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right) , using Telomerase (Phospho-Ser227) Antibody



Immunofluorescence analysis of HUVEC cells, using Telomerase (Phospho-Ser227) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of Telomerase (Phospho-Ser227) Antibody. The lane on the right is blocked with the Telomerase (Phospho-Ser227) peptide.