TERT (Phospho Ser227) Rabbit pAb

CatalogNo: YP1194

Key Features

Host Species
- Rabbit

Reactivity
- Human,Rat,Mouse,

Applications
- WB,IF,ELISA

MW
- 127kD (Calculated)

Isotype
- IgG

Recommended Dilution Ratios

IF 1:200-1:1000
WB 1:1000-1:5000
ELISA 1:10000
Not yet tested in other applications

Storage

Storage*	-15°C to -25°C/1 year(Do not lower than -25°C)
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Basic Information

Clonality	Polyclonal

Immunogen Information

Immunogen	The antiserum was produced against synthesized peptide derived from human Telomerase around the phosphorylation site of Ser227. AA range:196-245

Specificity	Phospho-TERT (S227) Polyclonal Antibody detects endogenous levels of TERT protein only when phosphorylated at S227.The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):GGsAS

Target Information

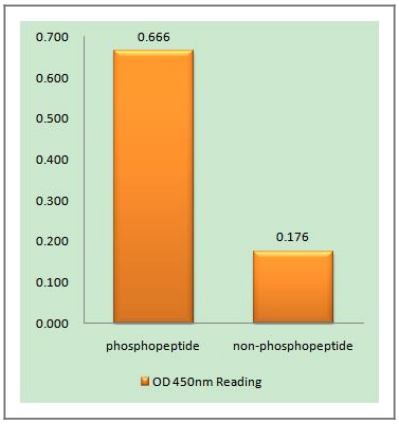
Gene name	TERT
Protein Name	Telomerase reverse transcriptase

Organism	Gene ID	UniProt ID
Human	7015;	O14746;
Mouse		O70372;

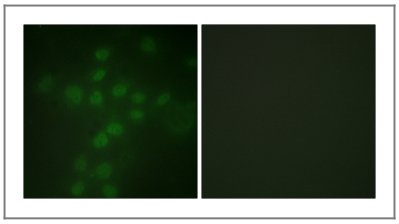
Cellular Localization	Nucleus, nucleolus . Nucleus, nucleoplasm. Nucleus. Chromosome, telomere. Cytoplasm. Nucleus, PML body. Shuttling between nuclear and cytoplasm depends on cell cycle, phosphorylation states, transformation and DNA damage. Diffuse localization in the nucleoplasm. Enriched in nucleoli of certain cell types. Translocated to the cytoplasm via nuclear pores in a CRM1/RAN-dependent manner involving oxidative stress-mediated phosphorylation at Tyr-707. Dephosphorylation at this site by SHP2 retains TERT in the nucleus. Translocated to the nucleus by phosphorylation by AKT.
Tissue specificity	Expressed at a high level in thymocyte subpopulations, at an intermediate level in tonsil T-lymphocytes, and at a low to undetectable level in peripheral blood T-lymphocytes.

Function Catalytic 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 susceptibilty 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.,

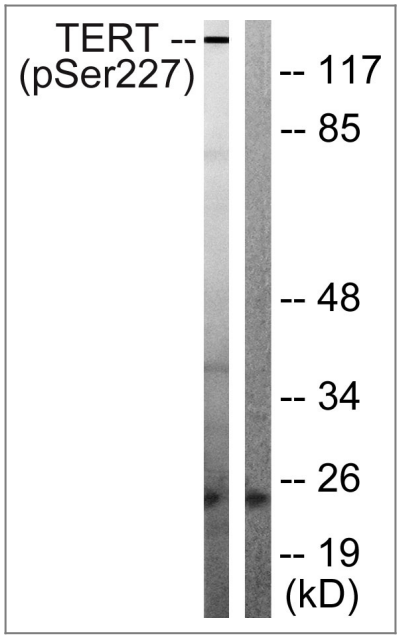
Validation Data



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.

Contact information

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Please scan the QR code to access additional product information:
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