

**TERT (phospho Ser227) rabbit pAb****Cat#: orb770247 (Manual)**

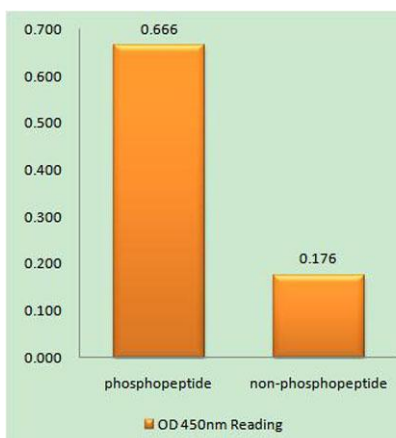
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<b>Product Name</b>	TERT (phospho Ser227) rabbit pAb
<b>Host species</b>	Rabbit
<b>Applications</b>	IF;ELISA
<b>Species Cross-Reactivity</b>	Human;Rat;Mouse;
<b>Recommended dilutions</b>	Immunofluorescence: 1/200 - 1/1000. ELISA: 1/10000. Not yet tested in other applications.
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human Telomerase around the phosphorylation site of Ser227. AA range:196-245
<b>Specificity</b>	Phospho-TERT (S227) Polyclonal Antibody detects endogenous levels of TERT protein only when phosphorylated at S227.
<b>Formulation</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide..
<b>Storage</b>	Store at -20°C. Avoid repeated freeze-thaw cycles.
<b>Protein Name</b>	Telomerase reverse transcriptase
<b>Gene Name</b>	TERT
<b>Cellular localization</b>	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.

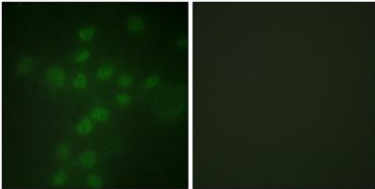
<b>Purification</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Clonality</b>	Polyclonal
<b>Concentration</b>	1 mg/ml
<b>Observed band</b>	
<b>Human Gene ID</b>	7015
<b>Human Swiss-Prot Number</b>	O14746
<b>Alternative Names</b>	TERT; EST2; TCS1; TRT; Telomerase reverse transcriptase; HEST2; Telomerase catalytic subunit; Telomerase-associated protein 2; TP2

### Background

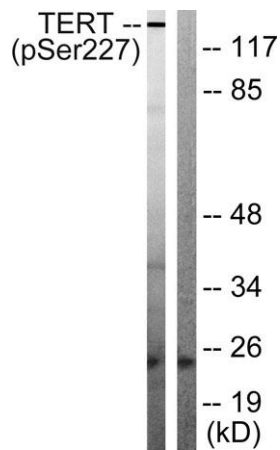
Telomerase is a ribonucleoprotein polymerase that maintains telomere ends by addition of the telomere repeat TTAGGG. The enzyme consists of a protein component with reverse transcriptase activity, encoded by this gene, and an RNA component which serves as a template for the telomere repeat. Telomerase 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 sp



**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.**