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## Telomerase (Phospho-Ser824) Ab

Cat.#: AF5433  
Size: 100ul,200ul

Concn.: 1mg/ml  
Source: Rabbit

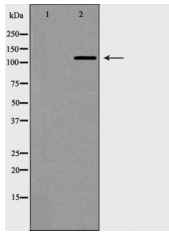
Mol.Wt.: 127 kDa  
Clonality: Polyclonal

Application:	WB 1:500-1:2000
Reactivity:	Human
Purification:	The Ab is from purified rabbit serum by affinity purification via sequential chromatography on phospho- and non-phospho-peptide affinity columns.
Specificity:	Telomerase (Phospho-Ser824) Ab detects endogenous levels of total Telomerase (Phospho-Ser824)
Immunogen:	A synthesized peptide derived from human Telomerase (Phospho-Ser824)
Uniprot:	O14746
Description:	Telomerase is a ribonucleoprotein enzyme essential for the replication of chromosome termini in most eukaryotes. Active in progenitor and cancer cells. Inactive, or very low activity, in normal somatic cells. Catalytic component of the telomerase holoenzyme complex whose main activity is the elongation of telomeres by acting as a reverse transcriptase that adds simple sequence repeats to chromosome ends by copying a template sequence within the RNA component of the enzyme.
Subcellular Location:	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.
Similarity:	The primer grip sequence in the RT domain is required for telomerase activity and for stable association with short telomeric primers. The RNA-interacting domain 1 (RD1)/N-terminal extension (NTE) is required for interaction with the

pseudoknot-template domain of each of TERC dimers. It contains anchor sites that bind primer nucleotides upstream of the RNA-DNA hybrid and is thus an essential determinant of repeat addition processivity. The RNA-interacting domain 2 (RD2) is essential for both interaction with the CR4-CR5 domain of TERC and for DNA synthesis. Belongs to the reverse transcriptase family. Telomerase subfamily.

**Storage Condition and Buffer:**

Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at -20 °C. Stable for 12 months from date of receipt



Western blot analysis of Telomerase (Phospho-Ser824) expression in Jurkat cell extracts. The lane on the left is treated with the antigen-specific peptide.

**IMPORTANT:** For western blot, incubate membrane with diluted Ab in 5% w/v milk , 1X TBS, 0.1% Tween@20 at 4°C with gentle shaking, overnight.

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