

## Product datasheet for **AP33476PU-N**

### Telomerase reverse transcriptase (TERT) (627-656) Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	FC, IF, IHC, WB
Recommended Dilution:	<b>Flow Cytometry:</b> 1/10 - 1/50. <b>Immunofluorescence:</b> 1/10 - 1/50. <b>Immunohistochemistry on Paraffin Sections:</b> 1/100. <b>Western Blot:</b> 1/1000.
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	KLH conjugated synthetic peptide selected from the Center region of Human TERT. <b>Epitope:</b> 627-656
Specificity:	This antibody detects Human TERT at center. Other species not tested.
Formulation:	PBS State: Purified State: Liquid Ig fraction Preservative: 0.09% (W/V) Sodium Azide
Purification:	Ammonium Sulfate Precipitation
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	126997 Da
Gene Name:	telomerase reverse transcriptase
Database Link:	<a href="#">Entrez Gene 7015 Human</a> <a href="#">O14746</a>



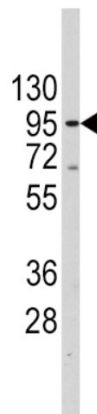
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**Background:**

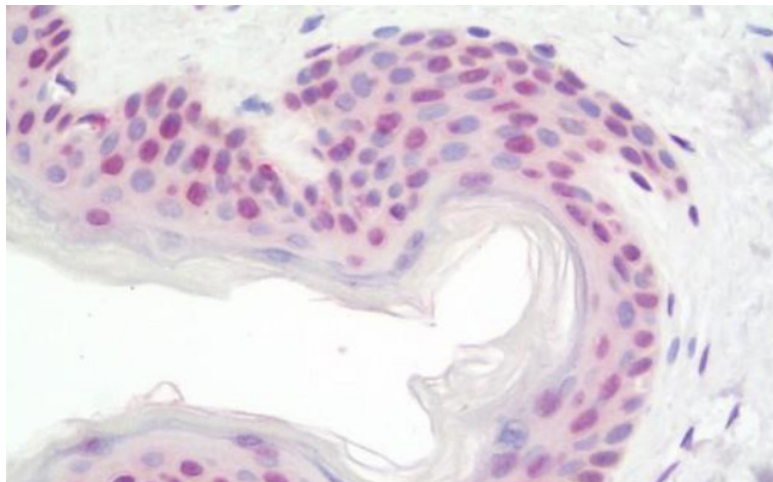
Telomerase is a ribonucleoprotein polymerase that maintains telomere ends by addition of the telomere repeat TTAGGG. The enzyme consists of a protein component with reverse transcriptase activity, encoded by this gene, and an RNA component which serves as a template for the telomere repeat. Telomerase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

**Synonyms:**

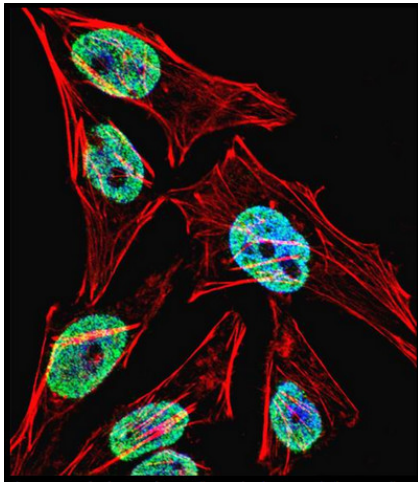
Telomerase reverse transcriptase, HEST2, EST2, TCS1, TRT

**Product images:**


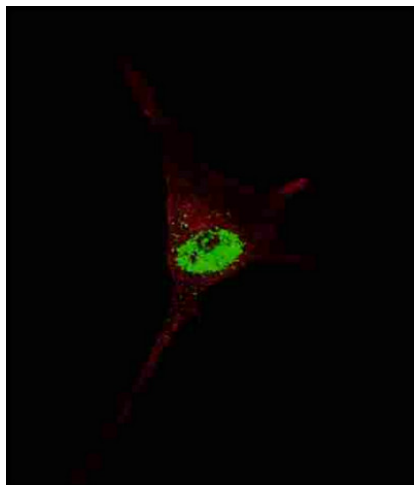
Western blot of anti-TERT Antibody in Jurkat cell line lysates (35 ug/lane). TERT (arrow) was detected using the purified antibody.



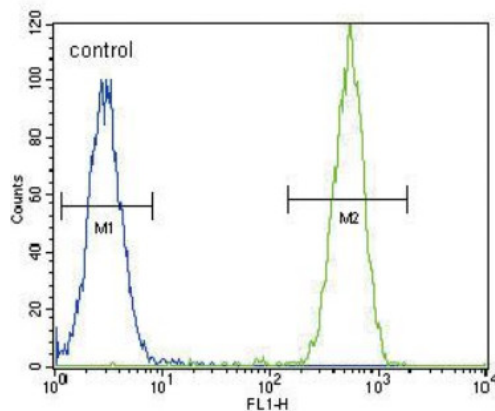
Formalin-Fixed, Paraffin-Embedded Human Skin tissue stained with Anti-TERT / Telomerase antibody at 1/100 dilution after heat-induced antigen retrieval.



Fluorescent confocal image of HeLa cell stained with TERT Antibody. HeLa cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with TERT primary antibody (1:25, 1 h at 37°C). For secondary antibody, Alexa Fluor 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37°C). Cytoplasmic actin was counterstained with Alexa Fluor 555 (red) conjugated Phalloidin (7units/ml, 1 h at 37°C). Nuclei were counterstained with DAPI (blue) (10 ug/ml, 10 min). TERT immunoreactivity is localized to Nucleus significantly and Cytoplasm weakly.



Fluorescent confocal image of SY5Y cells stained with TERT antibody. SY5Y cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.2%, 30 min). Cells were then incubated TERT primary antibody (1:200, 2 h at room temperature). For secondary antibody, Alexa Fluor 488 conjugated donkey anti-rabbit antibody (green) was used (1:1000, 1h). Nuclei were counterstained with Hoechst 33342 (blue) (10 ug/ml, 5 min). TERT immunoreactivity is localized to the nucleus of SY5Y cells.



TERT Antibody flow cytometry of HeLa cells (right histogram) compared to a negative control cell (left histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.