



TERT (aN-19): sc-27164

BACKGROUND

Telomerase is an essential enzyme that maintains telomeres on eukaryotic chromosomes. In mammals, telomerase is required for the lifelong proliferative capacity of normal regenerative and reproductive tissues and for sustained growth in a dedifferentiated state. *Arabidopsis* telomerase reverse transcriptase (TERT) is a highly basic protein of 131 kDa that contains the conserved reverse transcriptase motifs 1, 2 and A-E as well as the TERT-specific T motif. *Arabidopsis* TERT mRNA is 10-20 times more abundant in callus, which has high levels of telomerase activity, versus leaves, which contain no detectable telomerase.

REFERENCES

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- Heller-Uszynska, K., et al. 2002. Cloning and characterization of rice (*Oryza sativa* L) telomerase reverse transcriptase, which reveals complex splicing patterns. Plant J. 31: 75-86.
- Huard, S., et al. 2003. The C terminus of the human telomerase reverse transcriptase is a determinant of enzyme processivity. Nucleic Acids Res. 31: 4059-70.
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- Heacock, M., et al. 2004. Molecular analysis of telomere fusions in *Arabidopsis*: multiple pathways for chromosome end-joining. EMBO J. 23: 2304-13.
- Schrumpfova, P., et al. 2004. Characterization of two *Arabidopsis thaliana* myb-like proteins showing affinity to telomeric DNA sequence. Genome. 47: 316-24.

SOURCE

TERT (aN-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of TERT of *Arabidopsis thaliana* origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-27164 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

TERT (aN-19) is recommended for detection of TERT of *Arabidopsis thaliana* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of TERT: 120 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.