

## TERF2 / TRF2 Antibody (N-Terminus)

Rabbit Polyclonal Antibody Catalog # ALS17088

## **Specification**

## TERF2 / TRF2 Antibody (N-Terminus) - Product Information

Application IHC
Primary Accession O15554
Other Accession 7014
Reactivity Human
Host Rabbit
Clonality Polyclonal
Calculated MW 59594

## TERF2 / TRF2 Antibody (N-Terminus) - Additional Information

**Gene ID 7014** 

#### **Other Names**

TERF2, TRF2, TRBF2, TTAGGG repeat-binding factor 2, Telomeric DNA-binding protein

#### Target/Specificity

TERF2 antibody is human specific.

### **Reconstitution & Storage**

PBS, 0.02% sodium azide. Long term: -20°C; Short term: +4°C. Avoid repeat freeze-thaw cycles.

## **Precautions**

TERF2 / TRF2 Antibody (N-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

## TERF2 / TRF2 Antibody (N-Terminus) - Protein Information

## Name TERF2

Synonyms TRBF2, TRF2

#### **Function**

Binds the telomeric double-stranded 5'-TTAGGG-3' repeat and plays a central role in telomere maintenance and protection against end-to-end fusion of chromosomes. In addition to its telomeric DNA- binding role, required to recruit a number of factors and enzymes required for telomere protection, including the shelterin complex, TERF2IP/RAP1 and DCLRE1B/Apollo. Component of the shelterin complex (telosome) that is involved in the regulation of telomere length and protection. Shelterin associates with arrays of double-stranded 5'- TTAGGG-3' repeats added by telomerase and protects chromosome ends; without its protective activity, telomeres are no longer hidden from the DNA damage surveillance and chromosome ends are inappropriately processed by DNA repair pathways. Together with DCLRE1B/Apollo, plays a key role in telomeric loop (T loop) formation by generating 3' single- stranded overhang at the leading end telomeres: T loops have



been proposed to protect chromosome ends from degradation and repair. Required both to recruit DCLRE1B/Apollo to telomeres and activate the exonuclease activity of DCLRE1B/Apollo. Preferentially binds to positive supercoiled DNA. Together with DCLRE1B/Apollo, required to control the amount of DNA topoisomerase (TOP1, TOP2A and TOP2B) needed for telomere replication during fork passage and prevent aberrant telomere topology. Recruits TERF2IP/RAP1 to telomeres, thereby participating in to repressing homology-directed repair (HDR), which can affect telomere length.

## **Cellular Location**

Nucleus {ECO:0000255|PROSITE-ProRule:PRU00625, ECO:0000269|PubMed:20655466}. Chromosome, telomere. Note=Colocalizes with telomeric DNA in interphase cells and is located at chromosome ends during metaphase

#### **Tissue Location**

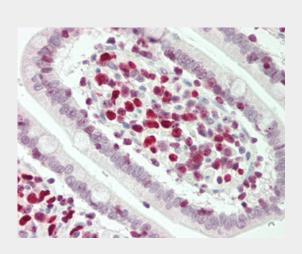
Ubiquitous. Highly expressed in spleen, thymus, prostate, uterus, testis, small intestine, colon and peripheral blood leukocytes

## TERF2 / TRF2 Antibody (N-Terminus) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

# TERF2 / TRF2 Antibody (N-Terminus) - Images



Human Small Intestine: Formalin-Fixed, Paraffin-Embedded (FFPE)

## TERF2 / TRF2 Antibody (N-Terminus) - Background

Binds the telomeric double-stranded 5'-TTAGGG-3' repeat and plays a central role in telomere maintenance and protection against end-to-end fusion of chromosomes. In addition to its telomeric DNA-binding role, required to recruit a number of factors and enzymes required for telomere protection, including the shelterin complex, TERF2IP/RAP1 and DCLRE1B/Apollo. Component of the shelterin complex (telosome) that is involved in the regulation of telomere length and protection.





Shelterin associates with arrays of double-stranded 5'-TTAGGG-3' repeats added by telomerase and protects chromosome ends; without its protective activity, telomeres are no longer hidden from the DNA damage surveillance and chromosome ends are inappropriately processed by DNA repair pathways. Together with DCLRE1B/Apollo, plays a key role in telomeric loop (T loop) formation by generating 3' single- stranded overhang at the leading end telomeres: T loops have been proposed to protect chromosome ends from degradation and repair. Required both to recruit DCLRE1B/Apollo to telomeres and activate the exonuclease activity of DCLRE1B/Apollo. Preferentially binds to positive supercoiled DNA. Together with DCLRE1B/Apollo, required to control the amount of DNA topoisomerase (TOP1, TOP2A and TOP2B) needed for telomere replication during fork passage and prevent aberrant telomere topology. Recruits TERF2IP/RAP1 to telomeres, thereby participating in to repressing homology- directed repair (HDR), which can affect telomere length.

## TERF2 / TRF2 Antibody (N-Terminus) - References

Martin J.,et al.Nature 432:988-994(2004). Broccoli D.,et al.Nat. Genet. 17:231-235(1997). Bilaud T.,et al.Nat. Genet. 17:236-239(1997). Bilaud T.,et al.Nucleic Acids Res. 24:1294-1303(1996). van Steensel B.,et al.Cell 92:401-413(1998).