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TERF2 / TRF2 Antibody
Goat Polyclonal Antibody
Catalog # ALS13002

Specification

TERF2 / TRF2 Antibody - Product Information

Application	**IHC**
Primary Accession	Q15554
Reactivity	**Human, Monkey, Pig, Horse, Bovine, Dog**
Host	**Goat**
Clonality	**Polyclonal**
Calculated MW	**60kDa KDa**

TERF2 / TRF2 Antibody - Additional Information

Gene ID 7014

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

Target/Specificity
Human TERF2.

Reconstitution & Storage
Store at -20°C. Minimize freezing and thawing.

Precautions
TERF2 / TRF2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

TERF2 / TRF2 Antibody - 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

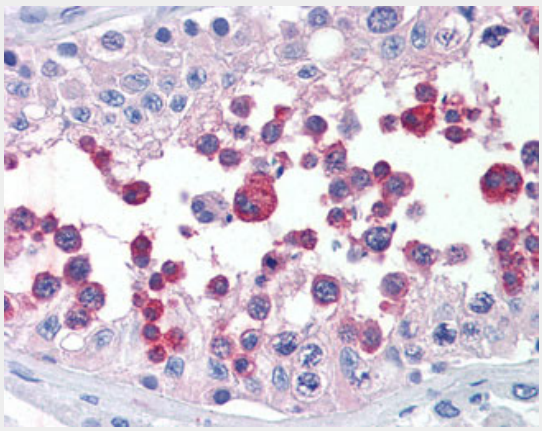
Tissue Location
Ubiquitous. Highly expressed in spleen, thymus, prostate, uterus, testis, small intestine, colon and peripheral blood leukocytes

TERF2 / TRF2 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

TERF2 / TRF2 Antibody - Images



Anti-TERF2 antibody IHC of human testis.

TERF2 / TRF2 Antibody - Background

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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 - 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).