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TERF2 Antibody (Center) Blocking peptide

Synthetic peptide
Catalog # BP13860c

Specification

TERF2 Antibody (Center) Blocking peptide - Product Information

Primary Accession Q15554

TERF2 Antibody (Center) Blocking peptide - 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
The synthetic peptide sequence used to generate the antibody AP13860c was selected from the Center region of TERF2. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

TERF2 Antibody (Center) Blocking peptide - 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 Antibody (Center) Blocking peptide - Protocols

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

- Blocking Peptides

TERF2 Antibody (Center) Blocking peptide - Images

TERF2 Antibody (Center) Blocking peptide - Background

This gene encodes a telomere specific protein, TERF2,which is a component of the telomere nucleoprotein complex. Thisprotein is present at telomeres in metaphase of the cell cycle, isa second negative regulator of telomere length and plays a key rolein the protective activity of telomeres. While having similartelomere binding activity and domain organization, TERF2 differsfrom TERF1 in that its N terminus is basic rather than acidic.

TERF2 Antibody (Center) Blocking peptide - References

Prescott, J., et al. Cancer 116(18):4275-4282(2010)Ye, J., et al. Cell 142(2):230-242(2010)Bombarde, O., et al. EMBO J. 29(9):1573-1584(2010)Joslyn, G., et al. Alcohol. Clin. Exp. Res. 34(5):800-812(2010)Giannone, R.J., et al. PLoS ONE 5 (8), E12407 (2010) :