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Anti-TRF2 Picoband Antibody

Catalog # ABO10098

Product Information

Application	WB, IHC-P
Primary Accession	Q15554
Host	Rabbit
Reactivity	Human, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Telomeric repeat-binding factor 2(TERF2) detection. Tested with WB, IHC-P in Human;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	7014
Other Names	Telomeric repeat-binding factor 2, TTAGGG repeat-binding factor 2, Telomeric DNA-binding protein, TERF2, TRBF2, TRF2
Calculated MW	59594
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Human, By Heat Western blot, 0.1-0.5 □g/ml, Human, Rat
Subcellular Localization	Nucleus . Chromosome, telomere . Colocalizes with telomeric DNA in interphase cells and is located at chromosome ends during metaphase.
Tissue Specificity	Ubiquitous. Highly expressed in spleen, thymus, prostate, uterus, testis, small intestine, colon and peripheral blood leukocytes.
Source	Eukaryota
Protein Name	Telomeric repeat-binding factor 2
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	E.coli-derived human TRF2 recombinant protein (Position: A81-K287). Human TRF2 shares 95.7% amino acid (aa) sequence identity with mouse TRF2.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins

Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Protein Information

Name	TERF2
Synonyms	TRBF2, TRF2 {ECO:0000303|PubMed:28216226
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 (PubMed:15608617, PubMed:16166375, PubMed:20655466, PubMed:28216226, PubMed:31595153, PubMed:9326950, PubMed:9326951, PubMed:9476899). 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 (PubMed:16166375, PubMed:20655466). Component of the shelterin complex (telosome) that is involved in the regulation of telomere length and protection (PubMed:16166375). 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 (PubMed:16166375). 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 (PubMed:20655466). Required both to recruit DCLRE1B/Apollo to telomeres and activate the exonuclease activity of DCLRE1B/Apollo (PubMed:20655466, PubMed:28216226). Preferentially binds to positive supercoiled DNA (PubMed:15608617, PubMed:20655466). 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 (PubMed:20655466). Recruits TERF2IP/RAP1 to telomeres, thereby participating in to repressing homology-directed repair (HDR), which can affect telomere length (By similarity).
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.

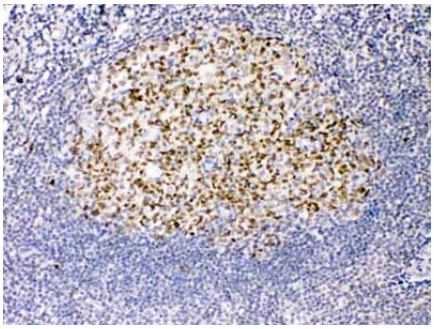
Background

Telomeric repeat-binding factor 2, also known as TERF2, TRF2, or TRBF2, is encoded in humans by the TERF2 gene. This gene encodes a telomere specific protein, TERF2, which is a component of the telomere nucleoprotein complex. This protein is present at telomeres in metaphase of the cell cycle, is a second negative regulator of telomere length and plays a key role in the protective activity of telomeres. While having similar telomere binding activity and domain organization, TERF2 differs from TERF1 in that its N terminus is basic rather than acidic.

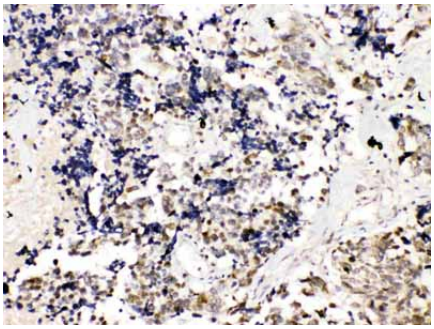
Images



Western blot analysis of TRF2 expression in rat thymus extract (lane 1) and COLO320 whole cell lysates (lane 2). TRF2 at 75KD was detected using rabbit anti- TRF2 Antigen Affinity purified polyclonal antibody (Catalog #ABO10098) at 0.5 □¼g/mL. The blot was developed using chemiluminescence (ECL) method .



TRF2 was detected in paraffin-embedded sections of human tonsil tissues using rabbit anti- TRF2 Antigen Affinity purified polyclonal antibody (Catalog # ABO10098) at 1 □¼g/mL. The immunohistochemical section was developed using SABC method .



TRF2 was detected in paraffin-embedded sections of human lung cancer tissues using rabbit anti- TRF2 Antigen Affinity purified polyclonal antibody (Catalog # ABO10098) at 1 □¼g/mL. The immunohistochemical section was developed using SABC method .

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