

TRF2 Rabbit pAb

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Catalog # AP93965

Product Information

Application	WB
Primary Accession	O35144
Reactivity	Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	60263
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from mouse TRF2
Epitope Specificity	401-495/495
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Nucleus. Chromosome, telomere. Colocalizes with telomeric DNA in interphase cells and is located at chromosome ends during metaphase.
SIMILARITY	Contains 1 HTH myb-type DNA-binding domain.
Post-translational modifications	Phosphorylated upon DNA damage, probably by ATM or ATR.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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. [provided by RefSeq, Jul 2008]

Additional Information

Gene ID	21750
Other Names	Telomeric repeat-binding factor 2, TTAGGG repeat-binding factor 2, Telomeric DNA-binding protein, Terf2, Trf2
Target/Specificity	Ubiquitous. Highly expressed in spleen, thymus, prostate, uterus, testis, small intestine, colon and peripheral blood leukocytes.
Dilution	WB=1:500-2000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce

Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
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Protein Information

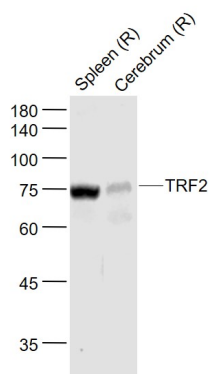
Name	Terf2
Synonyms	Trf2
Function	<p>Binds the telomeric double-stranded 5'-TTAGGG-3' repeat and plays a central role in telomere maintenance and protection against end-to-end fusion of chromosomes (PubMed:20339076, PubMed:20619712, PubMed:20622870, PubMed:28216226). In addition to its telomeric DNA-binding role, required to recruit a number of factors and enzymes required for telomere protection, including the shelterin complex, TERF2IP/RAP1 and DCLRE1B/Apollo (By similarity). Component of the shelterin complex (telosome) that is involved in the regulation of telomere length and protection (By similarity). 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 (By similarity). 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 (By similarity). Required both to recruit DCLRE1B/Apollo to telomeres and activate the exonuclease activity of DCLRE1B/Apollo (PubMed:28216226). Preferentially binds to positive supercoiled DNA (By similarity). 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 (By similarity). Recruits TERF2IP/RAP1 to telomeres, thereby participating in to repressing homology-directed repair (HDR), which can affect telomere length (PubMed:20339076, PubMed:20619712, PubMed:20622870).</p>
Cellular Location	<p>Nucleus {ECO:0000255 PROSITE-ProRule:PRU00625, ECO:0000269 PubMed:20339076}. Chromosome, telomere. Note=Colocalizes with telomeric DNA in interphase cells and is located at chromosome ends during metaphase</p>

Background

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Images

Sample: Lane 1: Spleen (Rat) Lysate at 40 ug Lane 2: Cerebrum (Rat) Lysate at 40 ug Primary: Anti-TRF2 (AP93965) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 68 kD Observed band size: 72 kD



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.