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[Primary Antibody]

Rabbit Anti-TRF2 antibody

Catalog Number: SL22936R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	TRF2
Immunogen:	KLH conjugated synthetic peptide derived from mouse TRF2: 401-495/495
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	WB=1:500-2000 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Rat, (predicted: Mouse)
Predicted MW.:	55kDa
Subcellular Location:	The nucleus
Background:	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] **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

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	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. **Subcellular Location:** 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. **Post-translational modifications :** Phosphorylated upon DNA damage, probably by ATM or ATR. **Similarity:** Contains 1 HTH myb-type DNA-binding domain. **Database links:** **Entrez Gene:** 7014 Human **Entrez Gene:** 21750 Mouse **Entrez Gene:** 361403 Rat Omim: 602027 Human **SwissProt:** Q15554 Human **SwissProt:** O35144 Mouse **Unigene:** 63335 Human **Unigene:** 6402 Mouse **Unigene:** 35087 Rat

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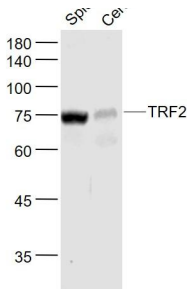
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[VALIDATION IMAGES]



Sample:
Lane 1: Spleen (Rat) Lysate at 40 ug
Lane 2: Cerebrum (Rat) Lysate at 40 ug
Primary: Anti-TRF2 (SL22936R) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 68 kD
Observed band size: 72 kD

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