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[Primary Antibody]

Rabbit Anti-TRF1 antibody

Catalog Number: SL1151R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	TRF1
Immunogen:	KLH conjugated synthetic peptide derived from human TRBF1: 121-220/439
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 IHC-P=1:100-500 IHC-F=1:100-500 IF=1:100-500 （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Human, Mouse, (predicted: Rat)
Predicted MW.:	50kDa
Subcellular Location:	The nucleus cytoplasmic
Background:	This gene encodes a telomere specific protein which is a component of the telomere nucleoprotein complex. This protein is present at telomeres throughout the cell cycle and functions as an inhibitor of telomerase, acting in cis to limit the elongation of individual chromosome ends. The protein structure contains a C-terminal Myb motif, a dimerization domain near its N-terminus and an acidic N-terminus. Two transcripts of this gene are alternatively spliced products. [provided by RefSeq]. **Function:** Binds the telomeric double-stranded TTAGGG repeat and negatively regulates telomere length. Involved in the regulation of the mitotic spindle. Component of the shelterin complex (telosome) that is involved in the regulation of telomere length and protection. Shelterin associates with arrays of double-stranded TTAGGG repeats added by telomerase and protects

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	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. **Subunit:** Homodimer; can contain both isoforms. Found in a complex with POT1; TINF2 and TNKS1. Interacts with ATM, TINF2, TNKS1, TNKS2, PINX1, NEK2 and MAPRE1. Component of the shelterin complex (telosome) composed of TERF1, TERF2, TINF2, TERF2IP ACD and POT1. Interacts with RLIM (via N-terminus). Interacts with FBXO4. Interaction with TINF2 protects against interaction with FBXO4 and subsequent polyubiquitination and proteasomal degradation. Interacts with GNL3L; this interaction promotes homodimerization. Interacts with TIN2. Interactions with GNL3L and TIN2 are mutually exclusive (By similarity). **Subcellular Location:** Nucleus. Cytoplasm, cytoskeleton, spindle. Chromosome, telomere. Note=Colocalizes with telomeric DNA in interphase and prophase cells. Telomeric localization decreases in metaphase, anaphase and telophase. Associates with the mitotic spindle. **Tissue Specificity:** Highly expressed and ubiquitous. Isoform Pin2 predominates. **Post-translational modifications:** Phosphorylated preferentially on Ser-219 in an ATM-dependent manner in response to ionizing DNA damage. ADP-ribosylation by TNKS1 or TNKS2 diminishes its ability to bind to telomeric DNA. Ubiquitinated by RLIM/RNF12, leading to its degradation by the proteasome. Ubiquitinated by a SCF (SKP1-CUL1-F-box protein) ubiquitin-protein ligase complex, leading to its degradation by the proteasome. **Similarity:** Contains 1 HTH myb-type DNA-binding domain. **Database links:** **Entrez Gene:** 7013 Human **Entrez Gene:** 21749 Mouse Omim: 600951 Human **SwissProt:** P54274 Human **SwissProt:** P70371 Mouse **Unigene:** 442707 Human **Unigene:** 4306 Mouse TRBF1telomeric repeat binding factor 1，this protein is present throughout the cell cycle，can inhibit telomerase activity，limit the elongation of chromosome ends。telomeric repeat binding factor 1 is located at the telomere tip，is a component of the telomeric nucleic acid-protein complex。

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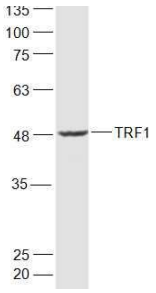
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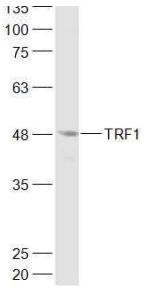
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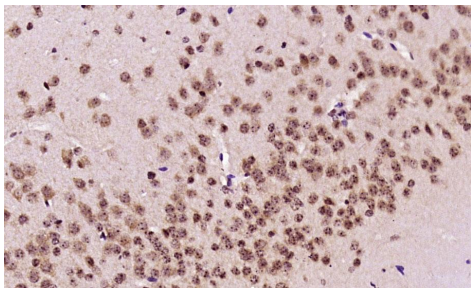
[VALIDATION IMAGES]



Sample:
K562(Human) Cell Lysate at 30 ug
Primary: Anti-TRF1 (SL1151R) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 50 kD
Observed band size: 49 kD



Sample:
HL-60(Human) Cell Lysate at 30 ug
Primary: Anti-TRF1 (SL1151R) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 50 kD
Observed band size: 49 kD



Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (TRF1) Polyclonal Antibody, Unconjugated (SL1151R) at 1:500 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.

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