10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

# TRF1 Rabbit pAb

Catalog # AP98244

## Product Information

| | |
|---|---|
| **Application** | WB, IHC-P, IHC-F, IF |
| **Primary Accession** | P54274 |
| **Other Accession** | P54274 |
| **Reactivity** | Human, Mouse |
| **Predicted** | Rat |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 50246 |
| **Physical State** | Liquid |
| **Immunogen** | KLH conjugated synthetic peptide derived from human TRBF1 |
| **Epitope Specificity** | 121-220/439 |
| **Isotype** | IgG |
| **Purity** | affinity purified by Protein A |
| **Buffer** | 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. |
| **SIMILARITY** | Contains 1 HTH myb-type DNA-binding domain. |
| **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). |
| **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. |
| **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 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, Jul 2008] |

## Additional Information

| | |
|---|---|
| **Gene ID** | 7013 |

| | |
|---|---|
| **Other Names** | PIN2; TRBF1; TRF; TRF1; hTRF1-AS; t-TRF1; TERF1_HUMAN; TERF1; NIMA-interacting protein 2; TTAGGG repeat-binding factor 1; Telomeric protein Pin2/TRF1; telomeric repeat binding factor 1; telomeric repeat binding factor (NIMA-interacting) 1 |
| **Dilution** | WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500 |
| **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. |

## Protein Information

| | |
|---|---|
| **Name** | TERF1 |
| **Synonyms** | PIN2, TRBF1, TRF, TRF1 |
| **Function** | Binds the telomeric double-stranded 5'-TTAGGG-3' repeat and negatively regulates telomere length (PubMed:31595153). 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 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. |
| **Cellular 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 (PubMed:11943150). Colocalizes with TRIOBP isoform 1 at the telomeres in interphase (PubMed:24692559) |
| **Tissue Location** | Highly expressed and ubiquitous. Isoform Pin2 predominates |

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