

TRF1 Rabbit pAb

Catalog # AP98244

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	P54274
Other Accession	P54274
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'.