

Anti-TERF2 antibody



Description	Unconjugated Rabbit polyclonal to TERF2
Model	STJ190120
Host	Rabbit
Reactivity	Human, Mouse
Applications	ELISA, WB
Immunogen	Synthesized peptide derived from human TERF2 protein.
Immunogen Region	130-210aa
Gene ID	7014
Gene Symbol	TERF2
Dilution range	WB 1:500-2000 ELISA 1:5000-20000
Specificity	TERF2 Polyclonal Antibody detects endogenous levels of protein.
Tissue Specificity	Ubiquitous. Highly expressed in spleen, thymus, prostate, uterus, testis, small intestine, colon and peripheral blood leukocytes.
Purification	TERF2 antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	Telomeric repeat-binding factor 2 TTAGGG repeat-binding factor 2 Telomeric DNA-binding protein
Molecular Weight	55 kDa
Clonality	Polyclonal

Conjugation	Unconjugated
Isotype	IgG
Formulation	Liquid form in PBS containing 50% glycerol, and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:11729OMIM:602027
Alternative Names	Telomeric repeat-binding factor 2 TTAGGG repeat-binding factor 2 Telomeric DNA-binding protein
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 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.
Sequence and Domain Family	The TRFH dimerization region mediates the interaction with DCLRE1B/Apollo but not TIN2. The HTH domain is an independent structural unit and mediates binding to telomeric DNA.
Cellular Localization	Nucleus Chromosome, telomere. Colocalizes with telomeric DNA in interphase cells and is located at chromosome ends during metaphase.
Post-translational Modifications	Phosphorylated upon DNA damage, most probably by ATM. Phosphorylated TERF2 is not bound to telomeric DNA, and rapidly localizes to damage sites. Methylated by PRMT1 at multiple arginines within the N-terminal Arg-rich region. Methylation may control association with telomeres.