

Product datasheet

Anti-TRF2 antibody ab13589

1 References 1 Image

Overview

Product name	Anti-TRF2 antibody
Description	Goat polyclonal to TRF2
Tested applications	Suitable for: WB, IP
Species reactivity	Reacts with: Human
Immunogen	Baculovirus expressed His-tagged whole length TRF2 protein was used for immunizing goat.
Positive control	Human cell lysates.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	Preservative: 0.02% Sodium Azide Constituents: PBS
Purity	Protein G purified
Purification notes	Purified by ammonium sulfate precipitation, followed by chromatography.
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab13589** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		
IP		

Application notes	IP: Use 2µg for 10 ⁶ cells. WB: Use at a concentration of 2 µg/ml. Predicted molecular weight: 60 kDa.
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Not tested in other applications.

Optimal dilutions/concentrations should be determined by the end user.

Target

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.

Tissue specificity

Ubiquitous. Highly expressed in spleen, thymus, prostate, uterus, testis, small intestine, colon and peripheral blood leukocytes.

Sequence similarities

Contains 1 HTH myb-type DNA-binding domain.

Domain

The TRFH dimerization region mediates the interaction with DCLRE1B/Apollo but not TINF2.

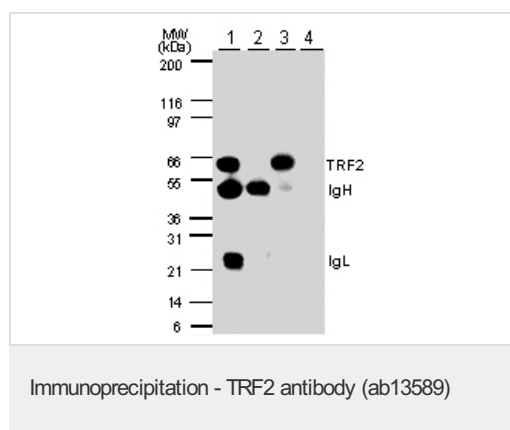
Post-translational modifications

Phosphorylated upon DNA damage, probably by ATM or ATR.

Cellular localization

Nucleus. Chromosome > telomere. Colocalizes with telomeric DNA in interphase cells and is located at chromosome ends during metaphase.

Images



Immunoprecipitation (IP)/ Western Blot (WB) Analysis of TRF2 in human cell lysates. Lane 1. IP with TRF2 antibody (mouse anti-TRF2). Lane 2. IP with control mouse IgG. Lane 3. IP with TRF2 antibody (goat anti-TRF2). Lane 4. IP with pre-immune goat Ig. Lanes 1-4. WB with TRF2 antibody. TRF2 is detected as an ~ 66 kD protein.

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