

Product datasheet

Anti-TRF2 antibody [EPR3517(2)] ab108997

Recombinant **RabMAb**

[12 References](#) [8 Images](#)

Overview

Product name	Anti-TRF2 antibody [EPR3517(2)]
Description	Rabbit monoclonal [EPR3517(2)] to TRF2
Host species	Rabbit
Tested applications	Suitable for: Flow Cyt (Intra), WB, IHC-P, ICC/IF Unsuitable for: IP
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HT-29, HeLa, and Jurkat whole cell lysate (ab7899); ICC/IF: HeLa and Jurkat cells. IHC-P: Human tonsil and spleen tissue. Flow Cyt (intra): HeLa cells.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p> <p>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified

Clonality	Monoclonal
Clone number	EPR3517(2)
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab108997 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
Flow Cyt (Intra)		1/300.
WB		1/1000 - 1/10000. Predicted molecular weight: 56 kDa.
IHC-P		1/1000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. See <u>IHC antigen retrieval protocols</u> . For unpurified use at 1/250 - 1/500.
ICC/IF		1/300. For unpurified use at 1/100 - 1/250.

Application notes Is unsuitable for IP.

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.

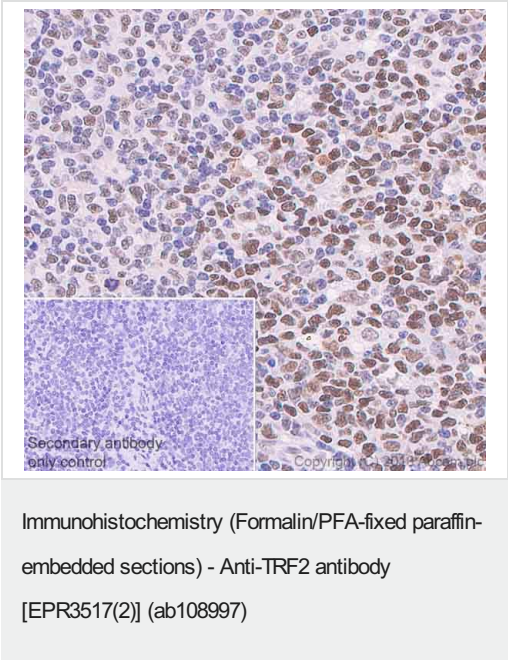
Post-translational Phosphorylated upon DNA damage, probably by ATM or ATR.

modifications

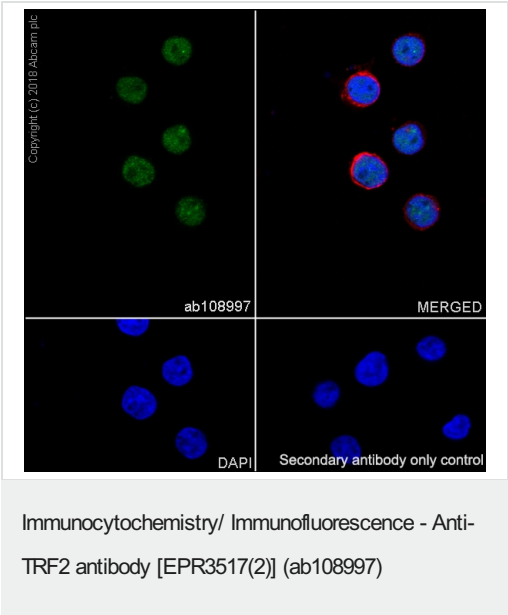
Cellular localization

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

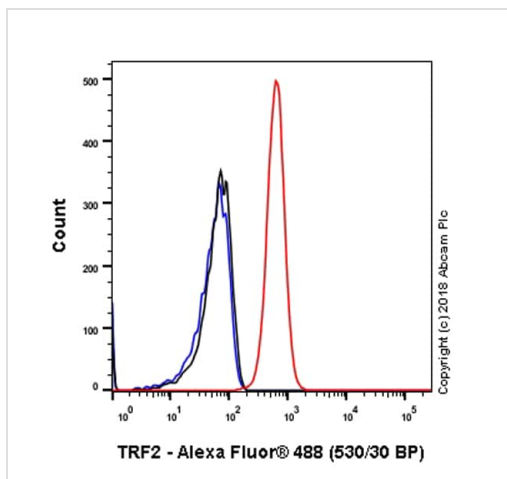
Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human tonsil tissue sections labeling TRF2 with Purified ab108997 at 1:1000 dilution (3.4 µg/ml). Heat mediated antigen retrieval was performed using [ab93684](#) (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.

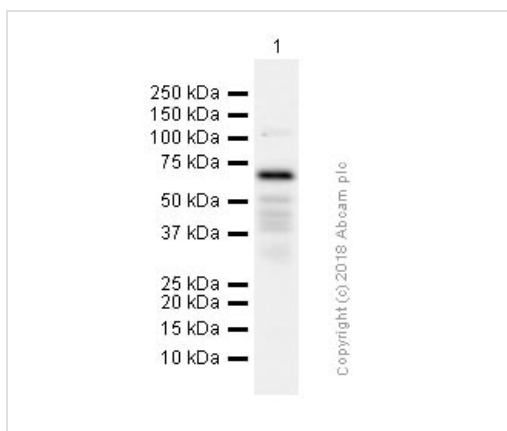


Immunocytochemistry/ Immunofluorescence analysis of Jurkat (Human T cell leukemia T lymphocyte) cells labeling TRF2 with Purified ab108997 at 1:300 dilution (10 µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, [ab150077](#)) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Flow Cytometry (Intracellular) - Anti-TRF2 antibody [EPR3517(2)] (ab108997)

Intracellular Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling TRF2 with Purified ab108997 at 1/300 dilution (10µg/ml) (red). Cells were fixed with 4% Paraformaldehyde. A Goat anti rabbit IgG (Alexa Fluor® 488, [ab150077](#)) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Western blot - Anti-TRF2 antibody [EPR3517(2)] (ab108997)

Anti-TRF2 antibody [EPR3517(2)] (ab108997) at 1/1000 dilution + HT-29 (Human colorectal adenocarcinoma epithelial cell) whole cell lysate at 15 µg

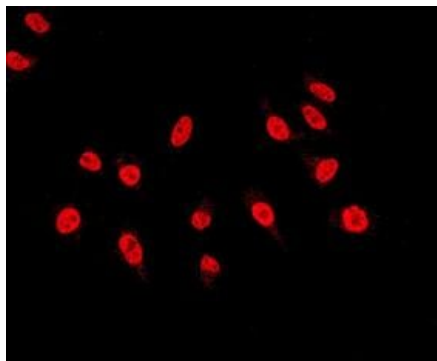
Secondary

Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

Predicted band size: 56 kDa

Observed band size: 62 kDa

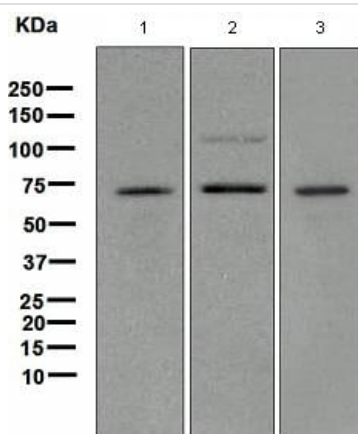
Blocking and dilution buffer: 5%NFDM/TBST



Immunocytochemistry/ Immunofluorescence - Anti-TRF2 antibody [EPR3517(2)] (ab108997)

ab108997 at 1/100 dilution staining TRF2 in HeLa cells by Immunofluorescence.

This image was generated using the unpurified version of the product.



Western blot - Anti-TRF2 antibody [EPR3517(2)] (ab108997)

All lanes : Anti-TRF2 antibody [EPR3517(2)] (ab108997) at 1/1000 dilution

Lane 1 : HT29 cell lysate

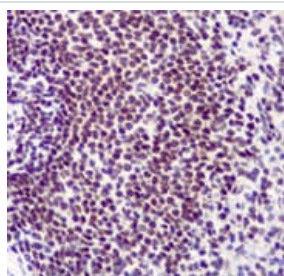
Lane 2 : HeLa cell lysate

Lane 3 : Jurkat cell lysate

Lysates/proteins at 10 µg per lane.

Predicted band size: 56 kDa

This image was generated using the unpurified version of the product.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TRF2 antibody [EPR3517(2)] (ab108997)

ab108997 at 1/250 dilution staining TRF2 in Human spleen by Immunohistochemistry, Paraffin-embedded tissue.

This image was generated using the unpurified version of the product.

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-TRF2 antibody [EPR3517(2)] (ab108997)

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