

Product datasheet

Anti-TRF1 antibody [572C] ab192629

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Overview

Product name	Anti-TRF1 antibody [572C]
Description	Rat monoclonal [572C] to TRF1
Host species	Rat
Tested applications	Suitable for: ICC/IF, WB
Species reactivity	Reacts with: Mouse, Human
Immunogen	Recombinant full length protein (His-tag) corresponding to Mouse TRF1 aa 1 to the C-terminus. Database link: P70371-1 Run BLAST with Run BLAST with
Positive control	IHC: HEK-TRF1 and HEK-TRF2 transfected cell lines. WB: NIH-3T3 and Hek-TRF1 cell lysate, IPS-GFP-TRF1 homo cell lysate. ICC/IF: iPS cells, HRK-TRF1 and IPS-GFP-TRF1 homo cell lines.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.4 Preservative: 0.02% Sodium azide Constituents: PBS, 1% BSA
Purity	Affinity purified
Purification notes	HiTrap protein G columns
Clonality	Monoclonal
Clone number	572C
Isotype	IgG2a

Applications

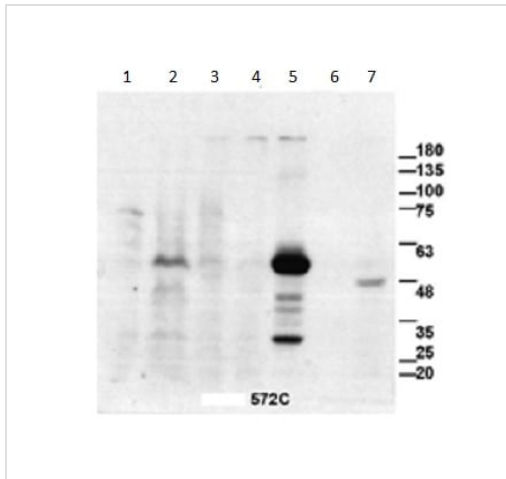
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab192629 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Predicted molecular weight: 50 kDa.

Target

Function	Binds the telomeric double-stranded TTAGGG repeat and negatively regulates telomere length. 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 TTAGGG 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.
Tissue specificity	Highly expressed and ubiquitous. Isoform Pin2 predominates.
Sequence similarities	Contains 1 HTH myb-type DNA-binding domain.
Domain	The acidic N-terminal domain binds to the ankyrin repeats of TNKS1 and TNKS2. The C-terminal domain binds microtubules. The TRFH dimerization region mediates the interaction with TIN2.
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.
Cellular localization	Nucleus. Cytoplasm > cytoskeleton > spindle. Chromosome > telomere. Colocalizes with telomeric DNA in interphase and metaphase cells and is located at chromosome ends during metaphase. Associates with the mitotic spindle.

Images



Western blot - Anti-TRF1 [572C] antibody (ab192629)

All lanes : Anti-TRF1 antibody [572C] (ab192629)

Lane 1 : IPS-GFP-TRF1 homo at 100 μ g

Lane 2 : IPS-GFP-TRF1 heter at 100 μ g

Lane 3 : IPS-sh TRF1 at 100 μ g

Lane 4 : IPS-sh TRF1 puro at 100 μ g

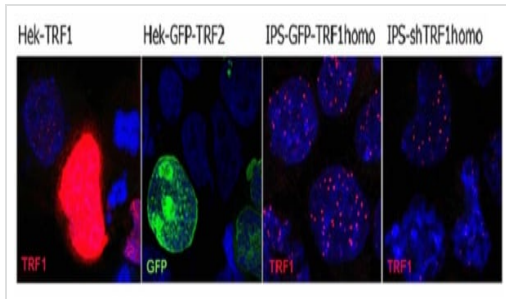
Lane 5 : HEK-TRF1 at 20 μ g

Lane 6 : HEK-FGFR2 at 20 μ g

Lane 7 : NIH-3T3 at 100 μ g

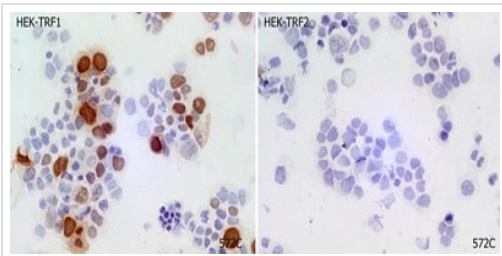
Predicted band size: 50 kDa

ab192629 used undiluted for all lanes.



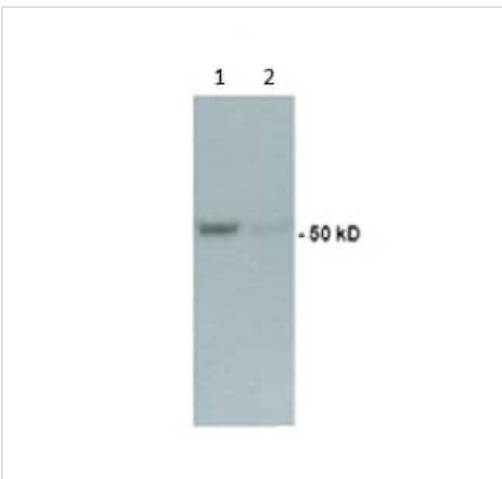
Immunocytochemistry/ Immunofluorescence - Anti-TRF1 [572C] antibody (ab192629)

Immunocytochemistry/ Immunofluorescent analysis of HEK-TRF1, HEK-GFP-TRF2, IPS-GFP-TRF1homo and IPS-shTRF1homo cell lines labeling TRF1 with undiluted ab192629.



Immunocytochemistry/ Immunofluorescence - Anti-TRF1 [572C] antibody (ab192629)

Immunocytochemistry/ Immunofluorescent analysis of frozen cytopins preparations of mTRF1 expressed in HEK293T labeling TRF1 using ab192629. Negative control on right used mTRF2-GFP expressed in HEK293T.



Western blot - Anti-TRF1 [572C] antibody (ab192629)

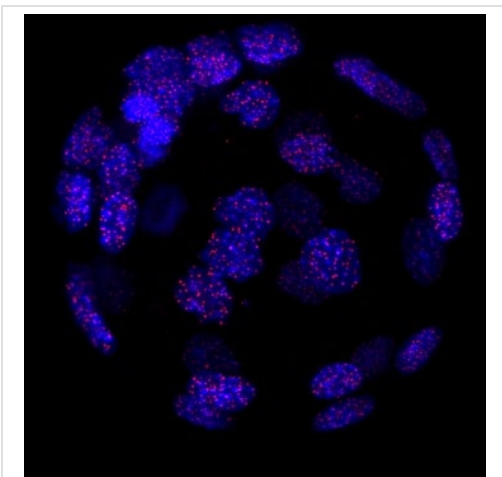
All lanes : Anti-TRF1 antibody [572C] (ab192629) at 1/500 dilution

Lane 1 : Mefs TRF1 +/- nuclear extract

Lane 2 : Mefs TRF1 KO nuclear extract

Lysates/proteins at 30 µg per lane.

Predicted band size: 50 kDa



Immunocytochemistry/ Immunofluorescence - Anti-TRF1 [572C] antibody (ab192629)

Immunocytochemistry/ Immunofluorescent analysis of mouse blastocyte labeling TRF1 with ab192629 at a 1/100 dilution.

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