Product Datasheet

TRF-1 Antibody (57-6) - BSA Free NB110-68281

Unit Size: 0.1 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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TRF-1 Antibody (57-6) - BSA Free

Product Information	
Unit Size	0.1 ml
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	57-6
Preservative	0.05% Sodium Azide
Isotype	IgG1 Kappa
Purity	Protein G purified
Buffer	Tris-Glycine, 0.15M NaCl
Target Molecular Weight	60 kDa
Product Description	
Host	Mouse
Gene ID	7013
Gene Symbol	TERF1
Species	Human, Mouse, Rat, Monkey
Marker	Telomere Marker
Immunogen	Recombinant human TRF1 [UniProt# P54274]
Product Application Details	
Applications	Western Blot, Simple Western, ELISA, Flow Cytometry, Immunocytochemistry/ Immunofluorescence
Recommended Dilutions	Western Blot 0.5 ug/ml, Simple Western 1:200, Flow Cytometry 1 ug per million cells, ELISA 1:100 - 1:2000, Immunocytochemistry/ Immunofluorescence 2 ug/ml
Application Notes	This TRF1 antibody is useful for ELISA and Western blot, where a band can be seen at approx. 60 kDa. In Simple Western only 10 - 15 uL of the recommended dilution is used per data point. See <u>Simple Western Antibody Database</u> for Simple Western validation: Tested in HeLa lysate 0.5 mg/mL, separated by Size, antibody dilution of 1:200, apparent MW was 60 kDa. Separated by Size-Wes, Sally Sue/Peggy Sue. The observed molecular weight of the protein may vary from the listed predicted molecular weight due to post translational modifications, post translation cleavages, relative charges, and other experimental factors.













Publications

Og?uszka M, Chen CY, Po?awska E et Al. Elevated tissue status of omega-3 fatty acids protects against age-related telomere attrition in fat-1 transgenic mice Clin Nutr 2024-05-06 [PMID: 38718720]

Foglio E, D'Avorio E, Vitiello L et al. Doxorubicin-Induced Cardiac Senescence Is Alleviated Following Treatment with Combined Polyphenols and Micronutrients through Enhancement in Mitophagy Cells 2023-11-10 [PMID: 37998340]

Xu Q, Mojiri A, Boulahouache L et al. Vascular senescence in progeria: role of endothelial dysfunction European Heart Journal Open 2022-07-28 [PMID: 36117952] (Western Blot, Block/Neutralize)

Sharma S, Mukherjee AK, Roy SS et al. Human telomerase is directly regulated by non-telomeric TRF2-Gquadruplex interaction Cell reports 2021-05-18 [PMID: 34010660] (ELISA, Human)

Chen YL, Sheu JJ, Sun CK et al. MicroRNA-214 modulates the senescence of vascular smooth muscle cells in carotid artery stenosis Mol. Med. 2020-05-14 [PMID: 32410577] (WB, Rat)

Sharma S, Mukherjee AK, Roy SS et al. Human Telomerase Expression is under Direct Transcriptional Control of the Telomere-binding-factor TRF2 bioRxiv 2020-01-01

Jullien L, Mestre M, Roux P, Gire V. Eroded human telomeres are more prone to remain uncapped and to trigger a G2 checkpoint response Nucleic Acids Res 2012-11-27 [PMID: 23193277] (WB, Human)





Procedures

Western Blot Protocol for TRF1 Antibody (NB110-68281)

TRF-1 Antibody (57-6): Western Blot Protocol

1. Perform SDS-PAGE (4-12% MOPS) on samples to be analyzed, loading 25 ug of total protein per lane.

2. Transfer proteins to Nitrocellulose according to the instructions provided by the manufacturer of the transfer apparatus.

3. Rinse membrane with dH2O and then stain the blot using Ponceau S for 1-2 minutes to access the transfer of proteins onto the nitrocellulose membrane. Rinse the blot in water to remove excess stain and mark the lane locations and locations of molecular weight markers using a pencil.

4. Rinse the blot in TBS for approximately 5 minutes.

5. Block the membrane using 5% BSA in TBS + Tween, 1 hour at RT.

6. Rinse the membrane in dH2O and then wash the membrane in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each.

7. Dilute the mouse anti-TRF1 primary antibody (NB 110-68281) in blocking buffer and incubate 1 hour at room temperature.

8. Rinse the membrane in dH2O and then wash the membrane in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each.

9. Apply the diluted mouse-IgG HRP-conjugated secondary antibody in blocking buffer (as per manufacturers instructions) and incubate 1 hour at room temperature.

10. Wash the blot in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each (this step can be repeated as required to reduce background).

11. Apply the detection reagent of choice in accordance with the manufacturers instructions (Pierce ECL).

Note: Tween-20 can be added to the blocking or antibody dilution buffer at a final concentration of 0.05-0.2%, provided it does not interfere with antibody-antigen binding.

Immunocytochemistry/Immunofluorescence Protocol for TRF-1 Antibody (NB110-68281) Immunocytochemistry Protocol

Culture cells to appropriate density in 35 mm culture dishes or 6-well plates.

1. Remove culture medium and wash the cells briefly in PBS. Add 10% formalin to the dish and fix at room temperature for 10 minutes.

2. Remove the formalin and wash the cells in PBS.

3. Permeablize the cells with 0.1% Triton X100 or other suitable detergent for 10 min.

4. Remove the permeablization buffer and wash three times for 10 minutes each in PBS. Be sure to not let the specimen dry out.

5. To block nonspecific antibody binding, incubate in 10% normal goat serum from 1 hour to overnight at room temperature.

6. Add primary antibody at appropriate dilution and incubate overnight at 4C.

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7. Remove primary antibody and replace with PBS. Wash three times for 10 minutes each.

8. Add secondary antibody at appropriate dilution. Incubate for 1 hour at room temperature.

9. Remove secondary antibody and replace with PBS. Wash three times for 10 minutes each.

10. Counter stain DNA with DAPi if required.





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Products Related to NB110-68281

NBP1-43319-0.5mg	Mouse IgG1 Kappa Isotype Control (P3.6.2.8.1)
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB800-PC1	HeLa Whole Cell Lysate

Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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