

Product Datasheet

Telomerase reverse transcriptase Antibody NB600-476

Unit Size: 0.1 mg

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

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Publications: 3

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Updated 4/23/2013 v.20.1

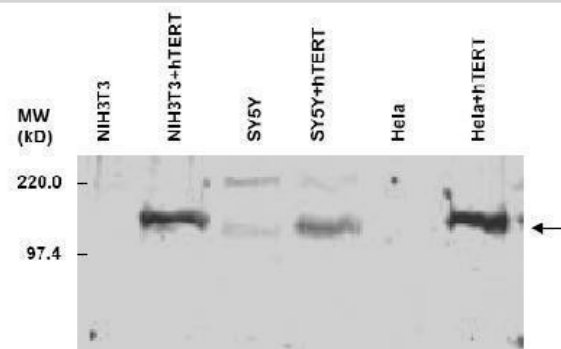
NB600-476

Telomerase reverse transcriptase Antibody

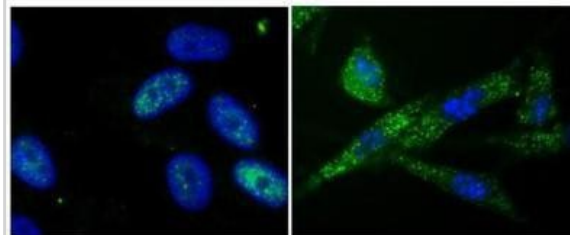
Product Information	
Unit Size	0.1 mg
Concentration	Please see the vial label for concentration.
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.01% Sodium Azide
Purity	Affinity purified
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Target Molecular Weight	127 kDa kDa
Product Description	
Host	Rabbit
Gene ID	7015
Gene Symbol	TERT
Species	Human
Species Reactivity	Cross-reacts with Human. Weak cross-reactivity with Mouse
Marker	Embryonic Stem Cell Marker
Specificity/Sensitivity	The antibody detects ectopically-expressed hTERT and high levels of endogenous hTERT, but several non-specific bands appear on immunoblots as well. Although it has been reported that this antibody reacts with mouse TERT (mTERT) (see Drissi, et al. 2001), the binding to mTERT is considerably weaker and less specific than the binding to hTERT (not shown).
Immunogen	Synthetic peptide corresponding to amino acids 1104-1123 of hTERT.
Product Application Details	
Applications	Western Blot, ELISA, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Immunoprecipitation
Recommended Dilutions	ELISA 1:10000-1:50000, Immunocytochemistry/Immunofluorescence 1:500, Immunohistochemistry 1:500, Immunohistochemistry-Paraffin, Immunoprecipitation 2ul per mg of Lysate, Western Blot 1:500-1:2000
Application Notes	In immunofluorescence microscopy assays, staining with anti-TERT-16 was specific to the nuclei of cells with ectopic TERT expression.

Images

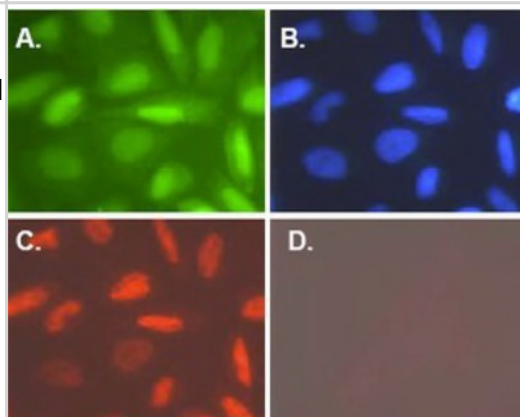
Western Blot: Telomerase reverse transcriptase Antibody [NB600-476] - Figure 1. Immunoblot using anti-hTERT antibody (1:500 dilution). Endogenous levels of mTERT in NIH 3T3 cells (lane 1) and hTERT in HeLa cells (lane 5) are not detectable. After transduction with an hTERT expression vector, both cell types show high levels of hTERT protein (lanes 2 and 6). SY5Y cells, which have high endogenous levels of hTERT, have detectable hTERT protein in both untransduced (lane 3) and transduced (lane 4) cells. The arrow indicates a molecular weight of approximately 127kD, the expected size of hTERT protein.



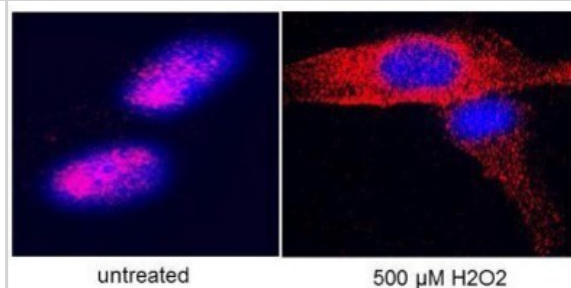
Immunocytochemistry/Immunofluorescence: Telomerase reverse transcriptase Antibody [NB600-476] - Two different lots of anti hTERT antibody were used to stain hTERT on hTERT-over-expressing fibroblasts. Cells were fixed in 4% PFA (in PBS) for 10 min and frozen in -80 after 3 min air-drying before incubation with anti hTERT 1:2000 overnight and staining with a 1:2000 dilution of Alexafluor488 secondary Ab. Confocal images provided by G. Saretzki, Institute for Ageing and Health, Newcastle University, UK. See Ahmed et. Al. for more information



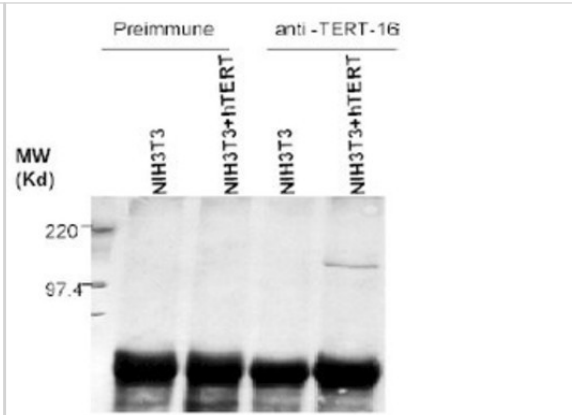
Immunocytochemistry/Immunofluorescence: Telomerase reverse transcriptase Antibody [NB600-476] - Immunofluorescence microscopy of Saos-2 cells transduced with a retroviral vector expressing hTERT and green fluorescent protein (GFP) from an internal ribosomal entry site (IRES). Panel A shows native GFP expression (green), Panel B shows DAPI staining of chromosomes (blue), Panel C shows anti-hTERT staining 1:500 dilution followed by washes and addition of 1:1000 dilution of rhodamine Goat anti- Rabbit IgG for detection. Panel D shows no staining of hTERT-transduced cells using pre-immune serum.



Immunocytochemistry/Immunofluorescence: Telomerase reverse transcriptase Antibody [NB600-476] - This antibody was used to stain hTERT on hTERT-over-expressing fibroblasts. Cells were untreated (Left) or treated (Right) with 500 μ M H₂O₂, fixed in 4% PFA (in PBS) for 10 min and frozen in -80 after 3 min air-drying before staining with anti hTERT 1:2000 overnight. Confocal images provided by G. Saretzki, Institute for Ageing and Health, Newcastle University, UK. See Ahmed et. Al. for more information.



Immunoprecipitation: Telomerase reverse transcriptase Antibody [NB600-476] - Immunoprecipitation of hTERT protein from NIH 3T3 cell lysates. The anti-hTERT antibody was used for both immunoprecipitation and immunoblotting. Anti-hTERT antibody was able to immunoprecipitate TERT protein from cells with ectopic hTERT expression (Lanes 4). The preimmune serum was unable to immunoprecipitate TERT protein (lanes 1 and 2).



Publications

Wu YL, Dudognon C, Nguyen E et al. Immunodetection of human telomerase reverse-transcriptase (hTERT) re-appraised: nucleolin and telomerase cross paths. *J Cell Sci* 2006 Jul [PMID: 16772337]

Tang H, Ge L, Shao W et al. Effect of targeted silencing of hTERT mRNA by lentivirus-mediated siRNA on A549 lung cancer cells in vitro *Mol Biol Rep* 2012 Oct 9 [PMID: 23054018] (WB, Human)

Ahmed S, JF Passos, MJ Birket, T Beckmann, S Brings, H Peters, MA Birch-Machin, T von Zglinicki, G Saretzki. Telomerase does not counteract telomere shortening but protects mitochondrial function under oxidative stress. *J Cell Sci*;121(Pt 7):1046-53. 2008 Apr 1. [PMID: 18334557]



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Products Related to NB600-476

NB100-913SuperNovusPack	Telomerase reverse transcriptase Antibody Pack
NB200-106	p19ARF Antibody
H00007015-R04-20nmol	Telomerase reverse transcriptase RNAi
NB100-56506	TRF2 Antibody (4A794.15)

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.

For more information on our guarantee, please visit www.novusbio.com/guarantee.

