

Product Datasheet

Fibrillarin Antibody (38F3) NB300-269

Unit Size: 0.25 ml

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

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NB300-269

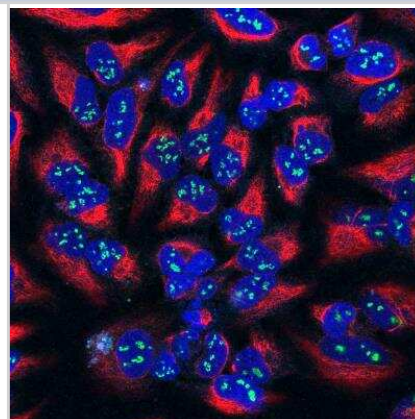
Fibrillarin Antibody (38F3)

Product Information	
Unit Size	0.25 ml
Concentration	This product is unpurified. The exact concentration of antibody is not quantifiable.
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	38F3
Preservative	0.035% Sodium Azide
Isotype	IgG1
Purity	Unpurified
Buffer	Supplied as concentrated hybridoma cell culture media.
Target Molecular Weight	34.5 kDa
Product Description	
Host	Mouse
Gene ID	2091
Gene Symbol	FBL
Species	Human, Mouse, Rat, Porcine, Bovine, C. elegans, Chicken, Drosophila, Equine, Plant, S. pombe, Yeast
Reactivity Notes	C. elegans and plant reactivity reported in scientific literature (PMID: 24722283 and 27588463 respectively). Use in S. pombe reported in scientific literature (PMID:31855181).
Marker	Nucleolar Marker
Immunogen	Yeast nuclear preparation (S. cerevisiae).
Product Application Details	
Applications	Western Blot, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, Immunohistochemistry Whole-Mount, Knockdown Validated
Recommended Dilutions	Western Blot 1:1000-1:5000, Flow Cytometry 1:20-1:400, Immunohistochemistry 1:500-1:1000, Immunocytochemistry/ Immunofluorescence 1:500-1:1000, Immunohistochemistry-Paraffin 1:500-1:1000, Immunohistochemistry-Frozen 1:500-1:1000, Immunohistochemistry Whole-Mount, Knockdown Validated
Application Notes	<p>This Fibrillarin Antibody (38F3) is useful for Western blot, Immunocytochemistry/Immunofluorescence, Flow Cytometry and Immunohistochemistry on both paraffin-embedded and frozen sections. In WB a band can be seen at approximately 34.5 kDa. In ICC/IF, this antibody shows prominent specular nucleolar staining.</p> <p>Use in IHC-WhMt and IHC-Fr reported in scientific literature (PMID: 24722283 and 21539824 respectively). Use in Immunohistochemistry-paraffin reported in scientific literature (PMID: 23542174).</p>

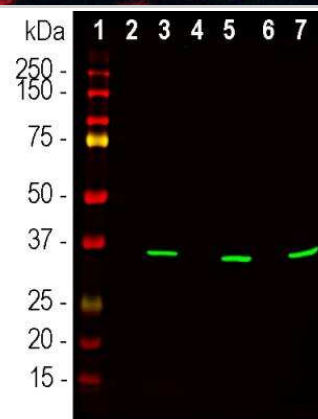


Images

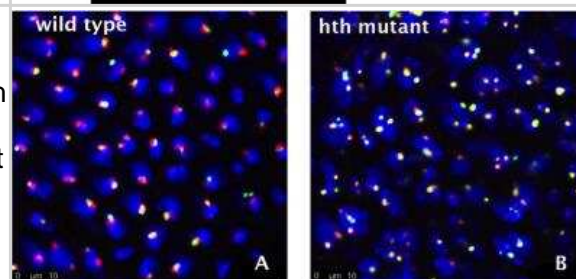
Immunocytochemistry/Immunofluorescence: Fibrillarin Antibody (38F3) [NB300-269] - High magnification confocal image of HeLa cells stained with fibrillarin antibody, dilution 1:100 from concentrated tissue culture media (Green), and costained with chicken vimentin pAb (Red), dilution 1:1,000. Nuclear DNA is revealed with the DAPI stain (Blue). The fibrillarin antibody shows strong staining of nucleoli in the nucleus, while the vimentin antibody reveals cytoplasmic intermediate filaments.



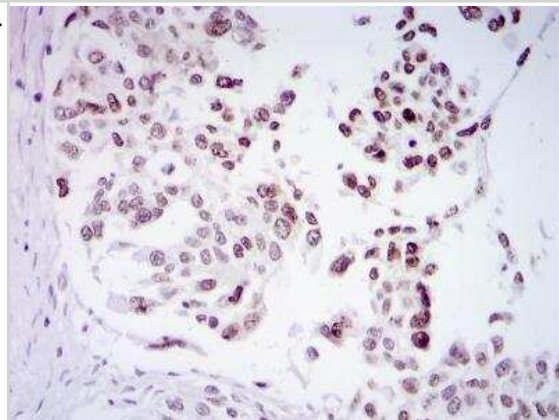
Western Blot: Fibrillarin Antibody (38F3) [NB300-269] - Analysis of lysates of cell fractions probed with Fibrillarin antibody, dilution 1:500 (Green): [1] protein standard, [2] C6 cytosol, [3] C6 nuclear, [4] HEK293 cytosol, [5] HEK293 nuclear, [6] NIH-3T3 cytosol and [7] NIH-3T3 nuclear fractions. The band at 37kDa corresponds to the fibrillarin protein detected exclusively in the nuclear fractions.



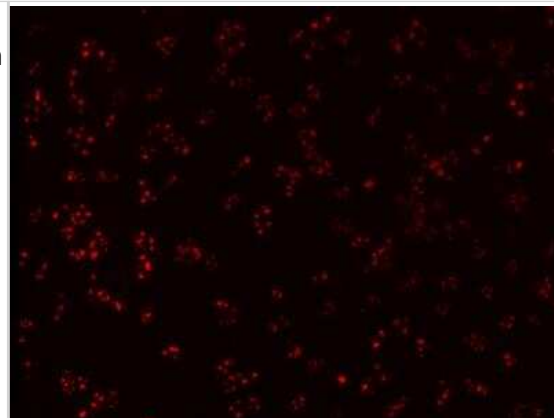
Immunocytochemistry/Immunofluorescence: Fibrillarin Antibody (38F3) [NB300-269] - The nuclei of hth mutants have dispersed rDNA foci and ectopic nucleoli and produce more rRNA. A) Wild type nuclei stained with anti-Fibrillarin (red) and a specific probe that recognizes the rDNA genomic region (green). B) hth mutant nuclei stained as in A. The mutant nuclei exhibit an increased number of nucleoli with different sizes. Image collected and cropped by CiteAb from the following publication (<https://dx.plos.org/10.1371/journal.pone.0120662>), licensed under a CC-BY license.



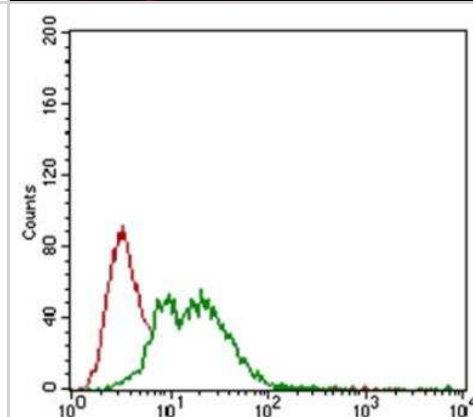
Immunohistochemistry-Paraffin: Fibrillarin Antibody (38F3) [NB300-269] - IHC staining of Fibrillarin in human ovarian cancer using DAB with hematoxylin counterstain.



Immunocytochemistry/Immunofluorescence: Fibrillarin Antibody (38F3) [NB300-269] - Mouse embryonic fibroblast fibrillarin stained with fibrillarin antibody and Alexa-594 secondary antibody. ICC/IF image submitted by a verified customer review.



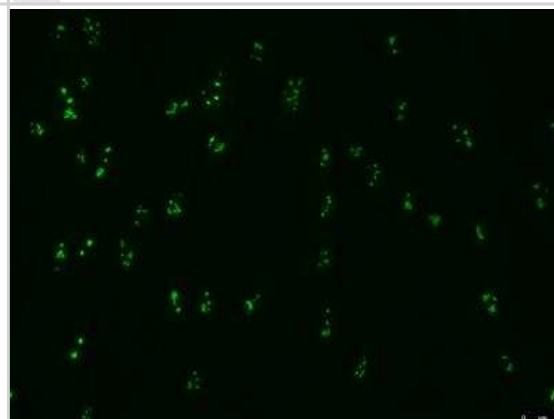
Flow Cytometry: Fibrillarin Antibody (38F3) [NB300-269] - Fibrillarin antibody was tested at 1:400 in HEK293 cells using an Alexa Fluor 488 secondary (shown in green) alongside unstained cells (shown in red).



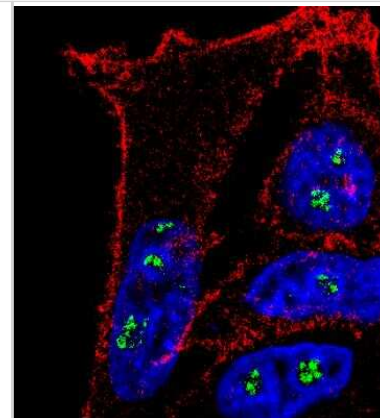
Western Blot: Fibrillarin Antibody (38F3) [NB300-269] - Western blot analysis of Fibrillarin expression on yeast protein extracts using NB300-269.



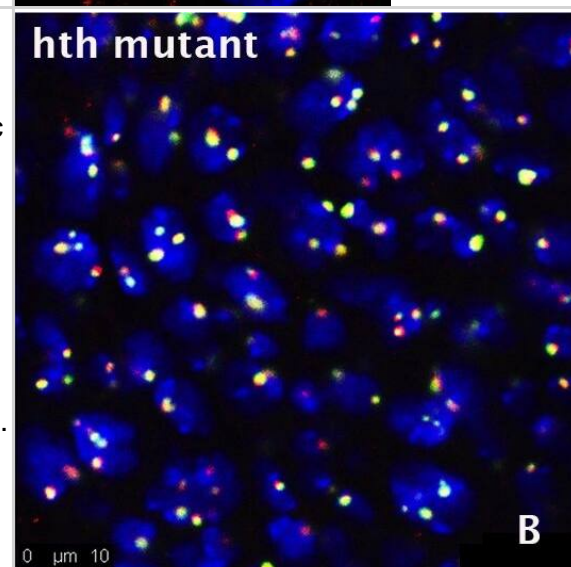
Immunocytochemistry/Immunofluorescence: Fibrillarin Antibody (38F3) [NB300-269] - Fibrillarin immunofluorescence in fibroblasts. ICC/IF image submitted by a verified customer review.



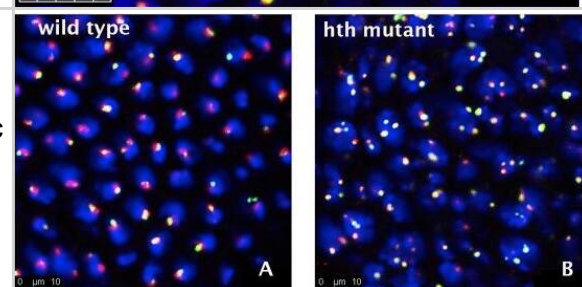
Immunocytochemistry/Immunofluorescence: Fibrillarin Antibody (38F3) [NB300-269] - IF Confocal analysis of MCF7 cells using Fibrillarin antibody (NB300-269, 1:5). An Alexa Fluor 488-conjugated Goat to mouse IgG was used as secondary antibody (green). Actin filaments were labeled with Alexa Fluor 568 phalloidin (red). DAPI was used to stain the cell nuclei (blue).



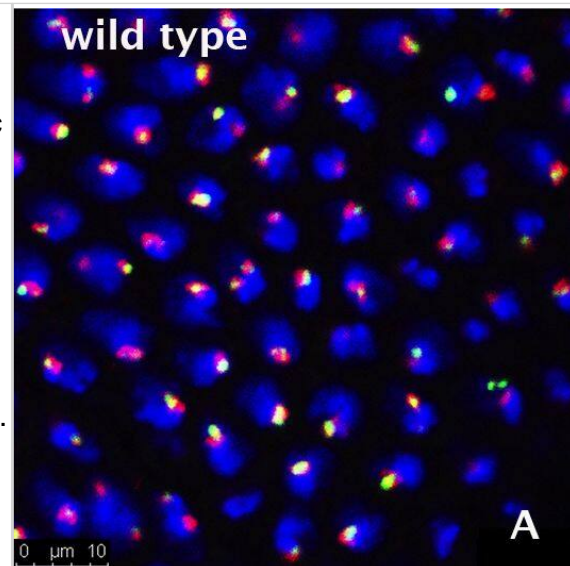
Immunocytochemistry/ Immunofluorescence: Fibrillarin Antibody (38F3) [NB300-269] - The nuclei of hth mutants have dispersed rDNA foci & ectopic nucleoli & produce more rRNA. A) Wild type nuclei stained with anti-Fibrillarin (red) & a specific probe that recognizes the rDNA genomic region (green). B) hth mutant nuclei stained as in A. The mutant nuclei exhibit an increased number of nucleoli with different sizes. C) Quantification of nuclear dots marked with both the rDNA probe & anti-Fibrillarin in wild type & mutant nuclei. 45 nuclei were quantified for each genotype. (p-value: 0,00010132, calculated using T-Test). D) qRT-PCR comparing the levels of 18S RNA transcripts in wild type & Dfhth mutant embryos. The experiment was performed three independent times to be significant (p-value: 0,01046, calculated using T-Test). Error bars in the graph show the standard deviation & have being calculated as in Fig. 1E. The experiment was normalized using the bicoid (bcd) mRNA. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/25794008>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Immunocytochemistry/ Immunofluorescence: Fibrillarin Antibody (38F3) [NB300-269] - The nuclei of hth mutants have dispersed rDNA foci & ectopic nucleoli & produce more rRNA. A) Wild type nuclei stained with anti-Fibrillarin (red) & a specific probe that recognizes the rDNA genomic region (green). B) hth mutant nuclei stained as in A. The mutant nuclei exhibit an increased number of nucleoli with different sizes. C) Quantification of nuclear dots marked with both the rDNA probe & anti-Fibrillarin in wild type & mutant nuclei. 45 nuclei were quantified for each genotype. (p-value: 0,00010132, calculated using T-Test). D) qRT-PCR comparing the levels of 18S RNA transcripts in wild type & Dfhth mutant embryos. The experiment was performed three independent times to be significant (p-value: 0,01046, calculated using T-Test). Error bars in the graph show the standard deviation & have being calculated as in Fig. 1E. The experiment was normalized using the bicoid (bcd) mRNA. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/25794008>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



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Publications

Klump BM Telomerase: Dissecting the Ends Thesis 2023-01-01

Miranda L. Wilson, Shannon N. Romano, Nitya Khatri, Devora Aharon, Yulong Liu, Odelya H. Kaufman, Bruce W. Draper, Florence L. Marlow Rbpms2 promotes female fate upstream of the nutrient sensing Gator2 complex component Mios Nature Communications 2024-06-19 [PMID: 38898112]

Qinyu Hao, Minxue Liu, Swapna Vidhur Daulatabad, Saba Gaffari, You Jin Song, Rajneesh Srivastava, Shivang Bhaskar, Anurupa Moitra, Hazel Mangan, Elizabeth Tseng, Rachel B Gilmore, Susan M Frier, Xin Chen, Chengliang Wang, Sui Huang, Stormy Chamberlain, Hong Jin, Jonas Korlach, Brian McStay, Saurabh Sinha, Sarath Chandra Janga, Supriya G Prasanth, Kannanganattu V Prasanth, Jeannie T Lee, Kevin Struhl Monoallelically expressed noncoding RNAs form nucleolar territories on NOR-containing chromosomes and regulate rRNA expression eLife 2024-01-19 [PMID: 38240312]

Klump BM, Perez GI, Patrick EM et al. TCAB1 prevents nucleolar accumulation of the telomerase RNA to facilitate telomerase assembly Cell reports 2023-06-01 [PMID: 37267110]

Palikaras K, Mari M, Ploumi C et al. Age-dependent nuclear lipid droplet deposition is a cellular hallmark of aging in Caenorhabditis elegans Aging cell 2023-01-31 [PMID: 36718841] (WB, C. elegans)

Papandreou M, Konstantinidis G, Tavernarakis N Nucleophagy delays aging and preserves germline immortality Nature Aging 2022-12-23 [PMID: 37118512] (IP, IB, Mouse)

Chen P, Chen Y, Chu T et al. Nucleolar control by a non apoptotic p53 caspases deubiquitinyase axis promotes resistance to bacterial infection FASEB J 2020-01-10 [PMID: 31914708]

Hibino E, Ichiyama Y, Tsukamura A et al. Bex1 is essential for ciliogenesis and harbours biomolecular condensate-forming capacity BMC biology 2022-02-10 [PMID: 35144600] (ICC/IF)

Wu T, Nance J, Chu F, Fazzio T Characterization of R-loop-interacting proteins in embryonic stem cells reveals roles in ribosomal RNA processing and gene expression Molecular & Cellular Proteomics 2021-08-01 [PMID: 34478875]

Procida T, Friedrich T, Jack APM, et al. JAZF1, A Novel p400/TIP60/NuA4 Complex Member, Regulates H2A.Z Acetylation at Regulatory Regions International journal of molecular sciences 2021-01-12 [PMID: 33445503] (ICC/IF, Human)

Sural S, Liang CY, Wang FY et al. HSB-1/HSF-1 pathway modulates histone H4 in mitochondria to control mtDNA transcription and longevity Sci Adv 2020-10-01 [PMID: 33087356]

Begik O, Lucas MC, Liu H et al. Integrative analyses of the RNA modification machinery reveal tissue- and cancer-specific signatures Genome Biol. 2020-05-07 [PMID: 32375858] (IHC-Fr, Mouse)

More publications at <http://www.novusbio.com/NB300-269>

Procedures

Immunohistochemistry-Paraffin Protocol Specific for NB300-269: Fibrillarin Antibody (38F3)

Materials

- 1) 1 Phosphate buffered saline (pH 7.6): NaCl 137mmol/L, KCl 2.7mmol/L, Na₂HPO₄ 4.3mmol/L, KH₂PO₄ 1.4 mmol/L
- 2) Citrate buffer, 0.01 M, pH6.0, Sodium Citrate 3g, Citric acid 0.4g
- 3) 3% Hydrogen peroxide
- 4) Primary antibody
- 5) Blocking serum (normal serum)
- 6) Biotinylated secondary antibody
- 7) DAB staining kit

Methods

1. Dewax and hydration of slides using xylene and EtOH:

Dry slides for 20 min in a 60 C oven

Add Xylene, 2 x 10 min

100%, 95%, 80%, and 70% EtOH, 5 min each EtOH concentration

Rinse in PBS, 5'

- 2 Antigen retrieval method (only for paraffin slides)

- 1a. High-pressure antigen retrieval procedure (recommended method)

Place slides in a glass slide holder (ensure that the slide holder is completely filled with slides, slides without sections if necessary, to ensure even heating. The entire slide holder is immersed in 1000 ml of Citrate buffer (0.01M, pH6.0) within a pressure cooker

Once steam is produced, and ONLY when steam is visible, from the pressure cooker (usually 15-20 min), the required high-pressure will have been reached, and slides will be incubated for 2 min.

Turn off heat, and allow buffer and slides to cool to room temperature

Slides are then rinsed in PBS for 5 minutes

2. Add 3% hydrogen peroxide solution, 10'at RT, then PBS, 3X5'

3. Normal blocking serum, 20'at RT

4. Incubate with Primary Ab, 4C overnight or 1.5 hours at 37C

5. Rinse with PBS, 3 X 5' each rinse

6. Add Biotin-conjugated second antibody, 10'at RT

7. Rinse with PBS, 3 X 5' each rinse

8. Add Streptavidin-Peroxidase, 10'at RT

9. Rinse with PBS, 3 X 5' each rinse

10. Staining with DAB solution, 2-5'under microscope

11. Stop the reaction by washing in tap water

12. Counterstain in Haematoxylin for 3-5 minutes

13. 75%, 80%, 95% and 100% ethanol, 5x2', xylene 2 x 10'



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Products Related to NB300-269

NBL1-10607	Fibrillarin Overexpression Lysate
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-97005-0.5mg	Mouse IgG1 Isotype Control (MG1)

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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