abcam

ab190710

Anti-Human Nucleoli antibody [NM95] - Nucleolar Marker

Anti-Human Nucleoli antibody [NM95] - Nucleolar Marker (ab190710) is a mouse monoclonal antibody detecting Human Nucleoli in **Western Blot, Flow Cytometry (Intra), IHC-P, ICC/IF**. Suitable for **Human**.

- Over 20 publications

Lab Essentials | Recombinant

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	NM95
Purification technique	Affinity purification Protein A
Concentration	0.896 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	1/50 - 1/100
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000 - 1/10000
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	0.5-1 µg/mL
Notes	Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Not recommended

Species	Mouse

Dilution info	-
Notes	Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Species	Rat
Dilution info	-
Notes	Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/1000
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information Human Human Nucleoli

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C

Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

What is this antibody validated in?
Anti-Human Nucleoli antibody [NM95] - Nucleolar Marker (ab190710) is a mouse recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Flow Cytometry (Flow Cyt), Immunohistochemistry (IHC-P), Immunocytochemistry/immunofluorescence (ICC/IF) in Human samples.

Trusted by the scientific community
Anti-Human Nucleoli [NM95] - Nucleolar Marker (ab190710) was first used in a scientific publication in 2014 and has been cited over 20 times in peer-reviewed journals.

Other related products
We have a range of other formats of antibody clone [NM95] also available for your convenience: ab190710, Carrier free - ab234031

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Want a custom formulation?
This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact orders@abcam.com

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

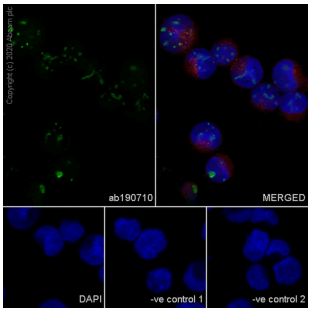
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

7 product images



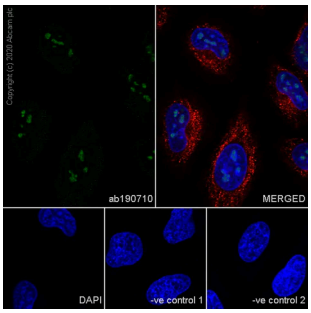
Immunocytochemistry/ Immunofluorescence - Anti-Human Nucleoli antibody [NM95] - Nucleolar Marker (ab190710)

Human Nucleoli Immunocytochemistry/ Immunofluorescence staining using mouse Anti-Human Nucleoli antibody

Immunofluorescent analysis of 100% methanol, 0.1% TritonX-100 permeabilized K562 (Human chronic myelogenous leukemia lymphoblast cell line) cells labelling Human Nucleoli with ab190710 at 1/50 dilution, followed by Goat Anti-Mouse IgG H&L (Alexa Fluor® 488) (ab150113) secondary antibody at 1/1000 dilution (green). Confocal image showing nucleolar staining in K562 cell line. The nuclear counter stain is DAPI (blue).
Tubulin is detected with Anti-alpha Tubulin mouse MAb (ab7291) at 1/1000 dilution, followed by Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) (ab150120) secondary antibody at 1/500 dilution (red).

Tubulin is detected with Anti-beta Tubulin rabbit monoclonal antibody (ab179513) at 1/200 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 594) (ab150080) secondary antibody at 1/500 dilution (red).

The negative controls are as follows:
-ve control 1: ab190710 at 1/50 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 594) (ab150080) secondary at 1/1000 dilution.
-ve control 2: Anti-beta Tubulin rabbit monoclonal antibody (ab179513) at 1/200 dilution, followed by Goat Anti-Mouse IgG H&L (Alexa Fluor® 488) (ab150113) secondary at 1/1000 dilution.



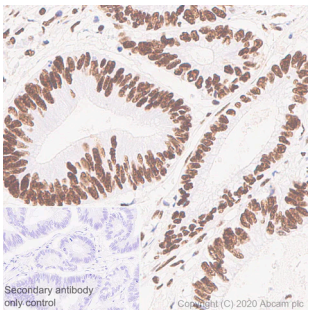
Immunocytochemistry/ Immunofluorescence - Anti-Human Nucleoli antibody [NM95] - Nucleolar Marker (ab190710)

Human Nucleoli Immunocytochemistry/ Immunofluorescence staining using mouse Anti-Human Nucleoli antibody

Immunofluorescent analysis of 100% methanol, 0.1% TritonX-100 permeabilized HeLa (Human cervix adenocarcinoma epithelial cell) cells labelling Human Nucleoli with ab190710 at 1/50 dilution, followed by Goat Anti-Mouse IgG H&L (Alexa Fluor® 488) (ab150113) secondary antibody at 1/1000 dilution (green). Confocal image showing nucleolar staining in HeLa cell line. The nuclear counter stain is DAPI (blue).
Tubulin is detected with Anti-beta Tubulin rabbit monoclonal antibody (ab179513) at 1/200 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 594) (ab150080) secondary antibody at 1/500 dilution (red).

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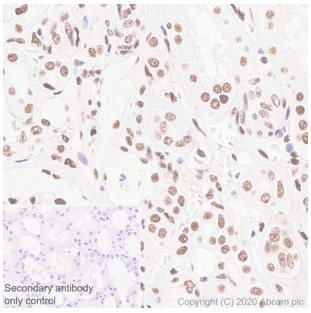


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Human Nucleoli antibody [NM95] - Nucleolar Marker (ab190710)

Human Nucleoli Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-Human Nucleoli antibody

Immunohistochemical analysis of paraffin-embedded sections human colon cancer tissue labelling Human Nucleoli with ab190710 at 1/2000 dilution, followed by secondary ready to use Goat Anti-Mouse IgG H&L (HRP polymer) (ab214879). Nuclear staining in human colon cancer tissue is observed. Counter stained with Hematoxylin. Heat mediated antigen retrieval was performed using Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins.
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ready to use Goat Anti-Mouse IgG H&L (HRP polymer) (ab214879).

The section was incubated with ab190710 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument.



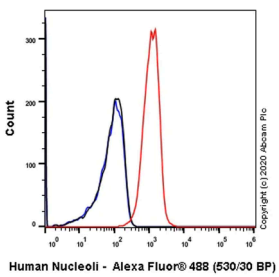
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Human Nucleoli antibody [NM95] - Nucleolar Marker (ab190710)

Human Nucleoli Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-Human Nucleoli antibody

Immunohistochemical analysis of paraffin-embedded human kidney tissue labelling Human Nucleoli with ab190710 at 1/1000 dilution, followed by secondary antibody the ready to use Goat Anti-Mouse IgG H&L (HRP polymer) (ab214879). Nuclear staining in human kidney is observed. Counter stained with Hematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ready to use Goat Anti-Mouse IgG H&L (HRP polymer) (ab214879).

Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins.

The section was incubated with ab190710 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument.

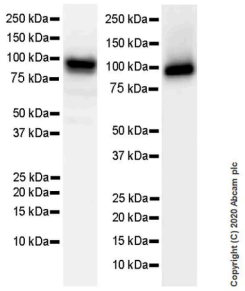


Flow Cytometry (Intracellular) - Anti-Human Nucleoli antibody [NM95] - Nucleolar Marker (ab190710)

Human Nucleoli Flow Cytometry (Intracellular) staining using mouse Anti-Human Nucleoli antibody

Flow cytometry overlay histogram of 4% paraformaldehyde-fixed, 90% methanol permeabilized K562 (Human chronic myelogenous leukemia lymphoblast) cells labelling Human Nucleoli with ab190710 at 1/1000 dilution (red) compared with a Mouse monoclonal IgG (black) and an

unlabelled control (Cell without incubation with primary antibody and secondary antibody) (blue). Goat anti mouse IgG (Alexa Fluor® 488) (ab150113), at 1/2000 dilution was used as the secondary antibody.



Western blot - Anti-Human Nucleoli antibody [NM95] - Nucleolar Marker (ab190710)

Human Nucleoli Western blot staining using mouse Anti-Human Nucleoli antibody

Exposure times:
lane 1: 3 seconds
lane 2: 5 seconds

5% NFDM/TBST

Lysates were made freshly and used in WB immediately to minimize protein degradation.

All lanes:
Western blot - Anti-Human Nucleoli antibody [NM95] - Nucleolar Marker (ab190710) at 1/1000 dilution

Lane 1:
HeLa (human cervix adenocarcinoma epithelial cell), whole cell lysate at 20 µg

Lane 2:
K562 (human chronic myelogenous leukemia lymphoblast), whole cell lysate at 20 µg

Secondary

All lanes:
Peroxidase-Conjugated Goat anti-Mouse IgG (H+L) at 1/10000 dilution

Predicted band size: 100 kDa

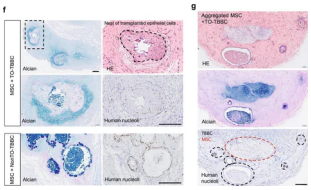


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Immunohistochemistry - Anti-Human Nucleoli antibody [NM95] - Nucleolar Marker (ab190710)

Human Nucleoli Immunohistochemistry staining using mouse Anti-Human Nucleoli antibody

Immunohistochemistry using Anti-Human Nucleoli antibody [NM95] - Nucleolar Marker, ab190710. Publication image from Han, Y. et al., 2022, Nat Commun, 35288560. Legend direct from paper.

Co-culture assay of TBBC and human mesenchymal stem cells (MSC).a Flow chart illustrating in vitro assay setup. TBBCs were pre-differentiated for 13 days on air-liquid interface prior to co-culture, on the other side, MSCs were pre-induced as pellets in chondrogenic medium or pre-induced as monolayers in osteogenic medium for 3 days before co-culture with TBBCs. RNA of MSC samples were collected every 5 days post-co-culture for PCR and fixed at the endpoint (Day 21) for staining. b Real-time PCR measurement of SOX9/ACAN (Chondrogenic-related) and RUNX2/BGLAP (Osteogenic-related) gene expressions on MSCs at D5, D10, and D15 post co-culture (n = 2 experimental replicates per group). w/nc denoting co-culture with non-TO control, w/TO denoting co-culture with TO-TBBC. Two-tailed Student t-tests were performed and p values are indicated to show statistical significance. c HE and Alcian Blue staining on MSC spheroids which were co-cultured with control or TO cells for 21 days, to reveal the progress of chondrogenesis (n = 2 independent experiments). MSC spheroids cultured alone under basic conditions and spheroids under standard differentiation conditions were examined in parallel as negative and positive controls. Scale bar, 100 µm. d, e Schematic diagrams showing two in vivo approaches to perform TBBC-MSC co-culture assay. Dual-cell transplantation onto immunodeficient NSG mice was

performed either by subcutaneous injection of TBBCs (2 x 106 cells/spot): MSC (2 x 106 cells/spot) mixture resuspended with 50% Growth factor-reduced Matrigel in a total volume of 200 µl/spot, or via minor surgery with aggregated MSC (106 cell/spheroid) surrounded by a gel-like layer of TBBCs resuspended in Matrigel. Cartoon mice in this graph were adapted from the online source clipartcraft.com. f HE and Alcian Blue staining on xenografts collected from approach D (n = 2 independent experiments). The human origin of growths found in nodules was confirmed by IHC staining with an anti-human nucleoli antibody. Scale bar, 200 µm. g HE and Alcian Blue staining on xenografts collected from approach E (n = 2 independent experiments). The human origin of growths was confirmed by IHC anti-human nucleoli staining. Scale bar, 200 µm. Source data are provided as a Source Data file.

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