abcam

ab4566

Anti-Fibrillarin antibody [38F3] - Nucleolar Marker

Anti-Fibrillarin antibody [38F3] - Nucleolar Marker (ab4566) is a mouse monoclonal antibody detecting Fibrillarin in **Western Blot, Flow Cytometry, ICC/IF**. Suitable for **Human, Mouse, Rat**.

- Over 220 publications
- Trusted since 2003

Lab Essentials

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	Preservative: 0.065% Sodium azide Constituents: Tissue culture supernatant
Form	Liquid
Clonality	Monoclonal
Immunogen	Cell preparation containing NOP1 protein. The exact immunogen used to generate this antibody is proprietary information. Database link P15646
Clone number	38F3
Purity	Tissue culture supernatant
Specificity	This clone was selected because it stains a single ~34kDa band on western blotting and shows a clear and strong punctate staining of yeast nuclei. It can therefore be used to identify nucleoli immunocytochemically. ab4566 was raised against yeast nuclear preps and the immunogen was identified as Nop1p, the yeast homolog of fibrillarin. Due to high aa homology the antibody should work with any specie possessing a nucleus, however this has not been tested.
Purification notes	Sterile filtered.

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	1/20
Notes	ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Plants
Dilution info	-
Notes	-

WB

Tested

Species	Mouse
Dilution info	1/2000 - 1/10000
Notes	1/2000 (cell lysates) - 1/10000 (nuclear fractions)(ECL). For other (non-ECL) western detection methods, 1/1000 - 1/5000. To detect mammalian fibrillarin on western blots by ECL, 1/500.

Species	Rat
Dilution info	1/2000 - 1/10000
Notes	1/2000 (cell lysates) - 1/10000 (nuclear fractions)(ECL). For other (non-ECL) western detection methods, 1/1000 - 1/5000. To detect mammalian fibrillarin on western blots by ECL, 1/500.

Species	Human

Dilution info	1/2000 - 1/10000
Notes	1/2000 (cell lysates) - 1/10000 (nuclear fractions)(ECL). For other (non-ECL) western detection methods, 1/1000 - 1/5000. To detect mammalian fibrillarin on western blots by ECL, 1/500.

Predicted

Species	Plants
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Rat
Dilution info	1/100
Notes	For IF of mammalian cells 1/500. ab4566 is sensitive to aldehyde. Use a mild formalin fixation or acetone or methanol fixation as the target is nuclear.

Species	Human
Dilution info	1/100
Notes	For IF of mammalian cells 1/500. ab4566 is sensitive to aldehyde. Use a mild formalin fixation or acetone or methanol fixation as the target is nuclear.

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Plants
Dilution info	-

Notes	-

Target data

See full target information FBL

Function	S-adenosyl-L-methionine-dependent methyltransferase that has the ability to methylate both RNAs and proteins (PubMed:24352239, PubMed:30540930, PubMed:32017898). Involved in pre-rRNA processing by catalyzing the site-specific 2'-hydroxyl methylation of ribose moieties in pre-ribosomal RNA (PubMed:30540930). Site specificity is provided by a guide RNA that base pairs with the substrate (By similarity). Methylation occurs at a characteristic distance from the sequence involved in base pairing with the guide RNA (By similarity). Probably catalyzes 2'-O-methylation of U6 snRNAs in box C/D RNP complexes (PubMed:32017898). U6 snRNA 2'-O-methylation is required for mRNA splicing fidelity (PubMed:32017898). Also acts as a protein methyltransferase by mediating methylation of 'Gln-105' of histone H2A (H2AQ104me), a modification that impairs binding of the FACT complex and is specifically present at 35S ribosomal DNA locus (PubMed:24352239, PubMed:30540930). Part of the small subunit (SSU) processome, first precursor of the small eukaryotic ribosomal subunit. During the assembly of the SSU processome in the nucleolus, many ribosome biogenesis factors, an RNA chaperone and ribosomal proteins associate with the nascent pre-rRNA and work in concert to generate RNA folding, modifications, rearrangements and cleavage as well as targeted degradation of pre-ribosomal RNA by the RNA exosome (PubMed:34516797).

Storage

Shipped at conditions	Blue Ice
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-Fibrillarin antibody [38F3] - Nucleolar Marker (ab4566) is a mouse monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Flow Cyt), Immunocytochemistry/immunofluorescence (ICC/IF) in Human, Mouse, Rat samples.

Trusted by the scientific community
Anti-Fibrillarin [38F3] - Nucleolar Marker (ab4566) was first used in a scientific publication in 2003 and has been cited over 220 times in peer-reviewed journals.

Reviewed by scientists
Anti-Fibrillarin [38F3] - Nucleolar Marker (ab4566) has over 20 independent reviews from customers.

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

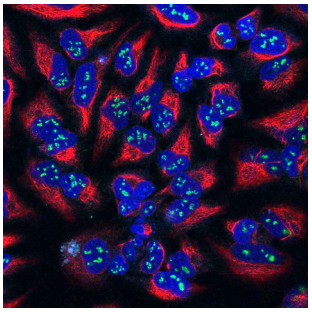
We do not recommend this combination. It is not covered by our product promise.

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.

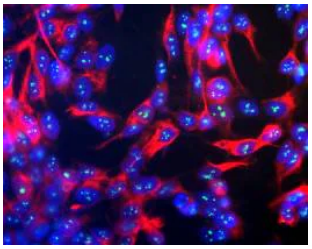
9 product images



Immunocytochemistry/ Immunofluorescence - Anti-Fibrillarin antibody [38F3] - Nucleolar Marker (ab4566)

Fibrillarin Immunocytochemistry/ Immunofluorescence staining using mouse Anti-Fibrillarin antibody

ICC analysis of HeLa cells stained with mouse monoclonal to Fibrillarin (green) and with chicken antibody to vimentin (red) and counterstained with a fluorescent DNA probe (blue). Nuclear DNA is revealed with DAPI(blue). The vimentin antibody was used at a dilution of 1/1000 and the fibrillarin monoclonal at 1/100. Cultures were processed using standard fixation and staining procedure (in protocol section).



Immunocytochemistry/ Immunofluorescence - Anti-Fibrillarin antibody [38F3] - Nucleolar Marker (ab4566)

Fibrillarin Immunocytochemistry/ Immunofluorescence staining using mouse Anti-Fibrillarin antibody

Human neuroblastoma line SH-SY5Y stained with mouse monoclonal to Fibrillarin (green) and with chicken antibody to neurofilament NF-H (red) and counterstained with a fluorescent DNA probe (blue). Nuclear DNA is revealed with Hoechst dye (blue). The NF-H antibody was used at a dilution of 1/100000 and the fibrillarin monoclonal at 1/1000. Cultures were processed using standard fixation and staining procedure (in protocol section).

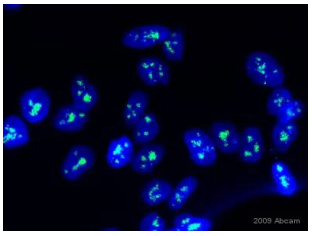
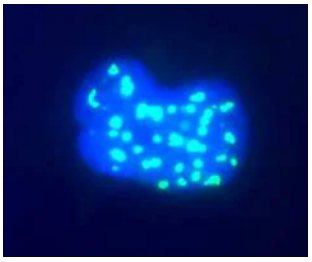


Image is courtesy of Cesar Camacho

Immunocytochemistry/ Immunofluorescence - Anti-Fibrillarin antibody [38F3] - Nucleolar Marker (ab4566)

Fibrillarin Immunocytochemistry/ Immunofluorescence staining using mouse Anti-Fibrillarin antibody

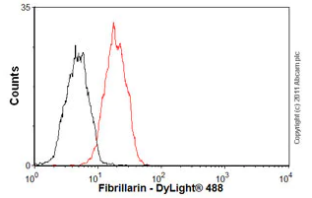
ab staining Fibrillarin in Human melanoma A7 cells by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with paraformaldehyde, permeabilized with 0.1% Triton and blocked with 1% BSA for 1 hour at room temperature. Samples were incubated with primary antibody (1/500 in 1% BSA) for 24 hours at 4°C. A FITC-conjugated Goat anti-mouse polyclonal (1/200) was used as the secondary antibody.



Immunocytochemistry/ Immunofluorescence - Anti-Fibrillarin antibody [38F3] - Nucleolar Marker (ab4566)

Fibrillarin Immunocytochemistry/ Immunofluorescence staining using mouse Anti-Fibrillarin antibody

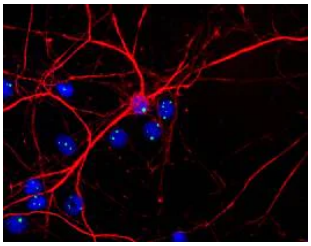
High magnification view of human Hek293 cell nuclei stained with mouse monoclonal to fibrillarin (green), counterstained with a fluorescent DNA probe (blue). Nuclear DNA is revealed with Hoechst dye (blue). Cultures were processed using our standard fixation and staining procedure (in protocol section).



Flow Cytometry - Anti-Fibrillarin antibody [38F3] - Nucleolar Marker (ab4566)

Fibrillarin Flow Cytometry staining using mouse Anti-Fibrillarin antibody

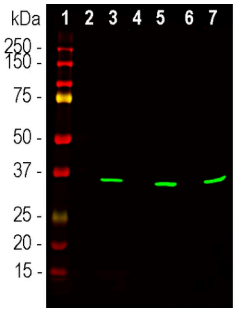
Overlay histogram showing HEK293 cells stained with ab4566 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab4566, 1/20 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1](ab91353, 2µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed.



Immunocytochemistry/ Immunofluorescence - Anti-Fibrillarin antibody [38F3] - Nucleolar Marker (ab4566)

Fibrillarin Immunocytochemistry/ Immunofluorescence staining using mouse Anti-Fibrillarin antibody

Rat neurons and glial stained with mouse monoclonal to Fibrillarin (green) and with chicken antibody to neurofilament NF-H (red). Cells were counterstained with a fluorescent DNA probe (blue). Nuclear DNA is revealed with Hoechst dye (blue). Cultures were processed using our standard fixation and staining procedure (in protocol section).



Western blot - Anti-Fibrillarin antibody [38F3] - Nucleolar Marker (ab4566)

All lanes:
Western blot - Anti-Fibrillarin antibody [38F3] - Nucleolar Marker (ab4566) at 1/500 dilution

Lane 2:
C6 cytosol fraction

Lane 3:
C6 nuclear fraction

Lane 4:
HEK-293 cytosol fraction

Lane 5:
HEK-293 nuclear fraction

Lane 6:
NIH-3T3 cytosol fraction

Lane 7:
NIH-3T3 nuclear fraction

Predicted band size: 33 kDa

Observed band size: 37 kDa

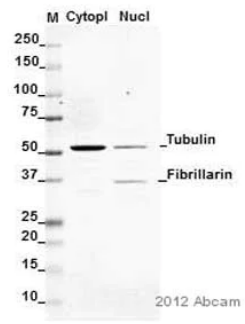


Image courtesy of an anonymous customer review.

Western blot - Anti-Fibrillarin antibody [38F3] - Nucleolar Marker (ab4566)

Mouse embryonic fibroblast fractionation.

Cytopl - cytoplasmic fraction.
Nucl - nuclear fraction.
20 µg of each loaded.

ab4566 used at a 1/2000 dilution.
The secondary used was an Alexa-Fluor 680 conjugated goat anti-mouse polyclonal used at a 1/10000 dilution.
All lanes:
Western blot - Anti-Fibrillarin antibody [38F3] - Nucleolar Marker (ab4566)

Predicted band size: 33 kDa

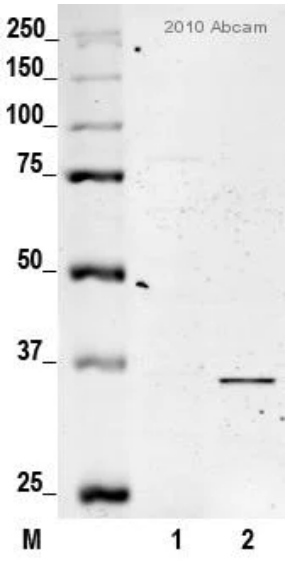


Image is courtesy of Dr Svetlana Khoronenkova

Western blot - Anti-Fibrillarin antibody [38F3] - Nucleolar Marker (ab4566)

Fibrillarin Western blot staining using mouse Anti-Fibrillarin antibody

All lanes:
Western blot - Anti-Fibrillarin antibody [38F3] - Nucleolar Marker (ab4566) at 1/2000 dilution

Lane 1:
cytoplasmic protein fraction of HeLa cells at 20 µg

Lane 2:
nuclear protein fraction of HeLa cells at 20 µg

Secondary

All lanes:
AlexaFluor 680 goat anti-mouse at 1/10000 dilution

Performed under reducing conditions.

Predicted band size: 33 kDa

Observed band size: 34 kDa

Exposure time: 1s

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.