abcam

Product datasheet

Anti-Fibrillarin antibody - Nucleolar Marker ab5821

**** 22 Abreviews 181 References 3 Images

Overview

Product name Anti-Fibrillarin antibody - Nucleolar Marker

Description Rabbit polyclonal to Fibrillarin - Nucleolar Marker

Host species Rabbit

SpecificityThis antibody detects a band at close to 34kDa in all species tested. The band can be completely

blocked with the immuising peptide in all cases - this is very strong evidence that the antibody is

recognising fibrillarin.

Replenishment batches of our polyclonal antibody, ab5821 are tested in WB. Previous batches were additionally validated in ICC/IF. This application is still expected to work and is covered by our Abpromise guarantee. You may also be interested in our alternative recombinant antibody,

ab166630.

Tested applications Suitable for: ICC/IF, WB

Species reactivity Reacts with: Mouse, Human, Drosophila melanogaster

Predicted to work with: Xenopus laevis • Does not react with: Rat

Immunogen Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

Positive control ICC/IF: HeLa cells

General notesThe Life Science industry has been in the grips of a reproducibility crisis for a number of years.

Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets

your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be

found below, along with publications, customer reviews and Q&As

Properties

Form Liquid

Storage instructions Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -

80°C. Avoid freeze / thaw cycle.

Storage buffer pH: 7.40

Preservative: 0.02% Sodium azide

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Constituent: PBS

Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.

Purity Immunogen affinity purified

Clonality Polyclonal

Isotype IgG

Applications

The Abpromise quarantee Our Abpromise quarantee covers the use of ab5821 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF	**** (<u>10)</u>	Use a concentration of 0.1 µg/ml.
WB	★★★★★ (7)	Use a concentration of 1 µg/ml. Detects a band of approximately 39 kDa (predicted molecular weight: 34 kDa).

Target

Function S-adenosyl-L-methionine-dependent methyltransferase that has the ability to methylate both RNAs

and proteins. Involved in pre-rRNA processing by catalyzing the site-specific 2'-hydroxyl $\,$

methylation of ribose moieties in pre-ribosomal RNA. Site specificity is provided by a guide RNA that base pairs with the substrate. Methylation occurs at a characteristic distance from the sequence involved in base pairing with the guide RNA. 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).

Sequence similarities Belongs to the methyltransferase superfamily. Fibrillarin family.

Post-translational

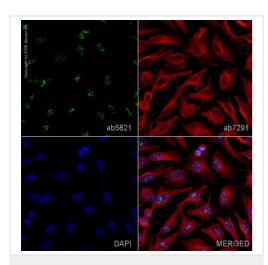
modifications

By homology to other fibrillarins, some or all of the N-terminal domain arginines are modified to

asymmetric dimethylarginine (DMA).

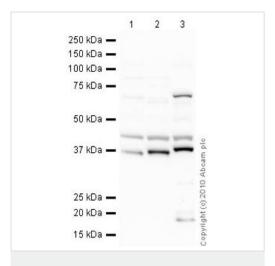
Cellular localization Nucleus, nucleolus. Fibrillar region of the nucleolus.

Images



Immunocytochemistry/ Immunofluorescence - Anti-Fibrillarin antibody - Nucleolar Marker (ab5821)

ab5821 staining Fibrillarin in HeLa cells. The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.1% PBS-Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated overnight at 4°C with ab5821 at 0.1µg/ml and ab7291, Mouse monoclonal [DM1A] to alpha Tubulin - Loading Control. Cells were then incubated with ab150081, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor[®] 488), preadsorbed at 1/1000 dilution (shown in green) and ab150120, Goat polyclonal Secondary Antibody to Mouse IgG - H&L (Alexa Fluor[®] 594), pre-adsorbed at 1/1000 dilution (shown in pseudocolour red). Nuclear DNA was labelled with DAPI (shown in blue).



Western blot - Anti-Fibrillarin antibody - Nucleolar Marker (ab5821)

All lanes : Anti-Fibrillarin antibody - Nucleolar Marker (ab5821) at 1 $\mu g/ml$

Lane 1 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate

Lane 2: NIH 3T3 (Mouse embryonic fibroblast cell line) Whole Cell Lysate

Lane 3: Schneider L2 whole cell lysate (ab14893)

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat polyclonal to Rabbit lgG - H&L - Pre-Adsorbed (HRP) (<u>ab65484</u>) at 1/3000 dilution

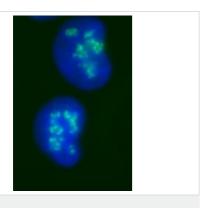
Performed under reducing conditions.

Predicted band size: 34 kDa **Observed band size:** 37 kDa

Additional bands at: 42 kDa, 70 kDa. We are unsure as to the

identity of these extra bands.

Exposure time: 3 minutes



Immunocytochemistry/ Immunofluorescence - Anti-Fibrillarin antibody - Nucleolar Marker (ab5821) This image is courtesy of Luke Hughes-Davies and

Rhiannon Jade, Gurdon Institute, Cambridge, UK

Immunofluorescent imaging of human cells (U2OS) with ab5821 reveals highly specific localisation to the dense fibrillar component (DFC) of the nucleolus associated with the initial ribosomal RNA (rRNA) precursor. The nucleolar protein fibrillarin is located primarily in the DFC. Blue is hoechst staining of the nucleus, green is ab5821 used at 1/100, merge image demonstrates exclusively nuclear localisation.

IF was performed with a standard paraformaldehyde technique (fixed in PBS buffered PFH 4% for 5 minutes, permeabilised with 0.5% triton-PBS for 5 minutes, blocked with 5% milk / 0.2% tween for one hour. Primary antibody used at 1/100 in 5% milk / 0.2% TWEEN for one hour, secondary antibody Alexa 488 for 30 minutes. All blocking and incubation steps carried out at 37 degrees C.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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