


Product datasheet

Anti-Nucleolin antibody ab70493

★★★★☆ [3 Abreviews](#) [13 References](#) [6 Images](#)

Overview

| | |
|----------------------------|---|
| Product name | Anti-Nucleolin antibody |
| Description | Rabbit polyclonal to Nucleolin |
| Host species | Rabbit |
| Tested applications | Suitable for: IHC-P, ICC/IF, ICC, WB, IP |
| Species reactivity | Reacts with: Mouse, Human Predicted to work with: Rabbit, Horse, Guinea pig, Cow, Dog, Pig, Chimpanzee, Rhesus monkey, Gorilla, African green monkey, Orangutan, Elephant  |
| Immunogen | Synthetic peptide within Human Nucleolin aa 550 to the C-terminus (C terminal). The exact immunogen sequence used to generate this antibody is proprietary information. If additional detail on the immunogen is needed to determine the suitability of the antibody for your needs, please contact our Scientific Support team to discuss your requirements. Database link: P19338 |
| Positive control | WB: HeLa, HEK-293T and NIH/3T3 whole cell lysate. IHC-P: Human ovarian carcinoma and mouse squamous cell carcinoma tissue. Human normal lymph node tissue. Mouse cerebellum tissue. IP: HeLa whole cell lysate. ICC/IF: HeLa cells. |
| General notes | <p>The 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.</p> <p>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</p> |

Properties

| | |
|-----------------------------|---|
| Form | Liquid |
| Storage instructions | Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles. |
| Storage buffer | pH: 6.8 Preservative: 0.09% Sodium azide Constituents: 0.1% BSA, Tris buffered saline |
| Purity | Immunogen affinity purified |

| | |
|------------------|------------|
| Clonality | Polyclonal |
| Isotype | IgG |

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab70493 in the following tested applications.

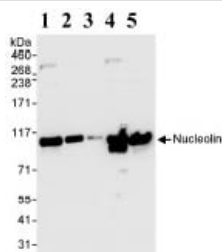
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

| Application | Abreviews | Notes |
|-------------|-----------|--|
| IHC-P | | Use a concentration of 1 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. |
| ICC/IF | ★★★★★ (1) | Use at an assay dependent concentration. |
| ICC | | Use a concentration of 5 µg/ml. |
| WB | ★★★★☆ (2) | 1/2000 - 1/10000. Detects a band of approximately 100 kDa (predicted molecular weight: 77 kDa). |
| IP | | Use at 2-5 µg/mg of lysate. |

Target

| | |
|---|--|
| Function | Nucleolin is the major nucleolar protein of growing eukaryotic cells. It is found associated with intranucleolar chromatin and pre-ribosomal particles. It induces chromatin decondensation by binding to histone H1. It is thought to play a role in pre-rRNA transcription and ribosome assembly. May play a role in the process of transcriptional elongation. Binds RNA oligonucleotides with 5'-UUAGGG-3' repeats more tightly than the telomeric single-stranded DNA 5'-TTAGGG-3' repeats. |
| Sequence similarities | Contains 4 RRM (RNA recognition motif) domains. |
| Post-translational modifications | Some glutamate residues are glycylylated by TTL8. This modification occurs exclusively on glutamate residues and results in a glycine chain on the gamma-carboxyl group. |
| Cellular localization | Nucleus > nucleolus. Cytoplasm. Localized in cytoplasmic mRNP granules containing untranslated mRNAs. |

Images



Western blot - Anti-Nucleolin antibody (ab70493)

All lanes : Anti-Nucleolin antibody (ab70493) at 0.02 µg/ml

Lane 1 : Whole cell lysate from HeLa cells at 50 µg

Lane 2 : Whole cell lysate from HeLa cells at 15 µg

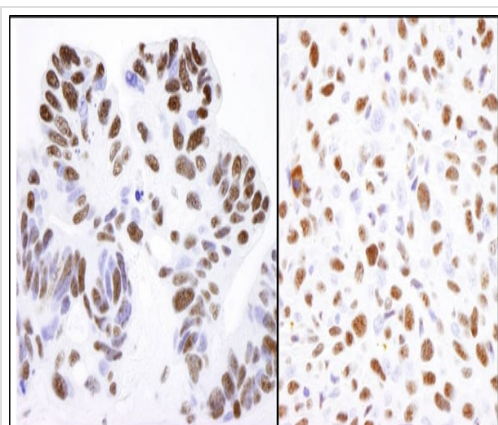
Lane 3 : Whole cell lysate from HeLa cells at 5 µg

Lane 4 : Whole cell lysate from 293T cells at 50 µg

Lane 5 : Whole cell lysate from NIH3T3 cells at 50 µg

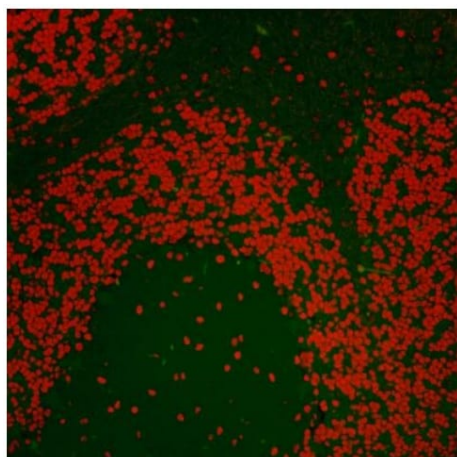
Predicted band size: 77 kDa

Observed band size: 100 kDa



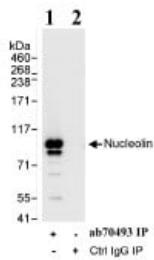
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Nucleolin antibody (ab70493)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human ovarian carcinoma (left) and mouse squamous cell carcinoma (right) tissues labelling Nucleolin with ab70493 at 1/1000 (0.2µg/ml). Detection: DAB.



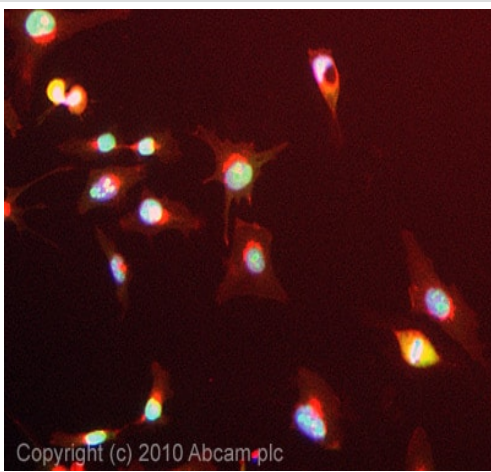
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Nucleolin antibody (ab70493)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse cerebellum tissue labelling Nucleolin with ab70493 at 1/100 (2 µg/ml), followed by goat anti-rabbit IgG-heavy and light chain cross-adsorbed antibody DyLight® 594 used at 1/100 dilution.



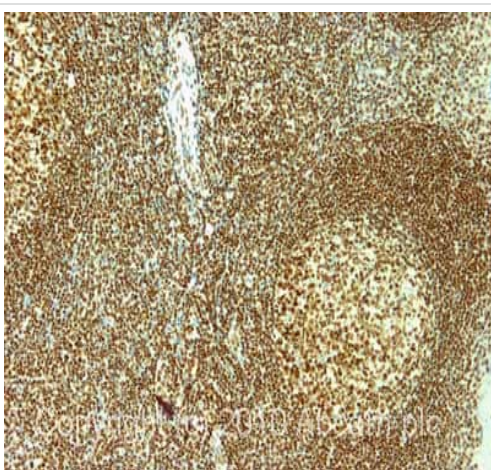
Immunoprecipitation - Anti-Nucleolin antibody (ab70493)

Detection of Human Nucleolin by Immunoprecipitation in Whole cell lysate from HeLa cells (1 mg for IP, 20% of IP loaded), using ab70493 at 3 µg/mg lysate (Lane 1). Lane 2 represents rabbit IgG IP control. Subsequent Western blot detection of nucleolin was performed using ab70493 at 1 µg/ml.



Immunocytochemistry/ Immunofluorescence - Anti-Nucleolin antibody (ab70493)

ICC/IF image of ab70493 stained HeLa cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab70493, 5µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Nucleolin antibody (ab70493)

IHC image of ab70493 staining in human normal lymph node formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab70493, 1µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

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