abcam

## Product datasheet

# Anti-Nuclear Pore Complex Proteins antibody [Mab414] - ChIP Grade ab24609

9 Abreviews 74 References 4 Images

### Overview

| | |
|---|---|
| **Product name** | Anti-Nuclear Pore Complex Proteins antibody [Mab414] - ChIP Grade |
| **Description** | Mouse monoclonal [Mab414] to Nuclear Pore Complex Proteins - ChIP Grade |
| **Host species** | Mouse |
| **Tested applications** | **Suitable for:** ChIP, WB, ICC/IF, IP, Electron Microscopy, IHC-Fr |
| **Species reactivity** | **Reacts with:** Mouse, Rat, Cat, Human, Saccharomyces cerevisiae, Xenopus laevis, Caenorhabditis elegans, Drosophila melanogaster, Zebrafish<br>**Predicted to work with:** Vertebrata |
| **Immunogen** | Nuclear pore complex mixture. |
| **Epitope** | ab24609 recognizes the conserved domain FXFG repeats in nucleaporins like the p62, p152, p90. |
| **Positive control** | Raw, HEK 293 cell lysate (see Abreview), rat liver lysate (see Aris reference) |
| **General notes** | This is a reliable general purpose monoclonal antibody which recognizes a related family of NPC proteins. This antibody is ideal for studying the morphology and composition of the nucleus and nuclear envelope. It is also useful in studying changes in the nuclear structure during mitosis and meiosis.<br>This product was changed from ascites to tissue culture supernatant on 20/05/2019. Please note that the dilutions may need to be adjusted accordingly. If you have any questions, please do not hesitate to contact our scientific support team. |

### Properties

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| **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** | Preservative: 0.03% Thimerosal (merthiolate)<br>Constituent: PBS |
| **Purity** | Tissue culture supernatant |
| **Primary antibody notes** | This is a reliable general purpose monoclonal antibody which recognizes a related family of NPC |

| | |
|---|---|
| | proteins. This antibody is ideal for studying the morphology and composition of the nucleus and nuclear envelope. It is also useful in studying changes in the nuclear structure during mitosis and meiosis. |
| **Clonality** | Monoclonal |
| **Clone number** | Mab414 |
| **Isotype** | IgG1 |

## Applications

Our Abpromise guarantee covers the use of **ab24609** 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 |
|---|---|---|
| ChIP | | Use at an assay dependent concentration. PubMed: 20419146 |
| WB | ★★★★★ | Use at an assay dependent concentration. Predicted molecular weight: 62 kDa.<br>Suitable also in non reduced western blotting conditions (see Abreview). Nuclear extraction may be necessary (protocol detailed in Aris et al, http://www.jcb.org/cgi/reprint/108/6/2059). |
| ICC/IF | ★★★★☆ | Use at an assay dependent concentration.<br>Fix cells with 4% paraformaldehyde in NWB (200 mM sucrose, 15 mM Hepes, pH 7.4, 50 mM NaCl, 2.5 mM MgCl2, and 1 mM DTT). Permeabilise with 0.1% NP-40 or 0.1% Triton X-100 in PBS for 2 min. (see Lopez-Soler reference); different customer have used this antibody at different dilutions for ICC/IF (see images below). We recommend that optimal working dilutions are determined by each customer. |
| IP | | Use at an assay dependent concentration.<br>Nuclear extraction may be necessary (protocol detailed in Aris et al, http://www.jcb.org/cgi/reprint/108/6/2059). |
| Electron Microscopy | | Use at an assay dependent concentration. |
| IHC-Fr | | Use at an assay dependent concentration. 4% paraformaldehyde fixed tissue cut on a cryostat (see Kimura reference). |

## Target

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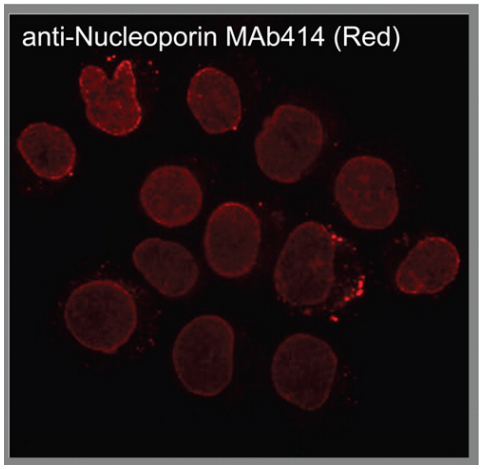
|---|---|
| **Function** | Essential component of nuclear pore complex. Required for the assembly of peripheral proteins into the nuclear pore complex. |
| **Sequence similarities** | Belongs to the nucleoporin Nup84/Nup107 family. |
| **Post-translational modifications** | Phosphorylated upon DNA damage, probably by ATM or ATR. |
| **Cellular localization** | Nucleus > nuclear pore complex. Chromosome > centromere > kinetochore. Located on both the cytoplasmic and nuclear sides of the nuclear pore. During mitosis, localizes to the kinetochores. |

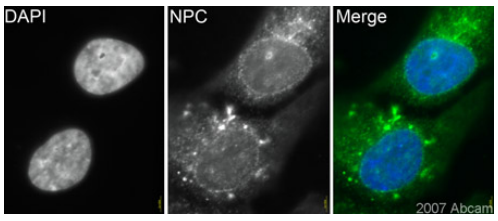
## Images




Immunocytochemistry/ Immunofluorescence - Anti-Nuclear Pore Complex Proteins antibody [Mab414] - ChIP Grade (ab24609)

ab24609 staining nuclear pore complex proteins in Human chronic myelogenous leukemia cells from bone marrow cells. Cells were fixed with 4% paraformaldehyde in DPBS buffer for 20 mins and permeabilised with 0.1% Triton X-100 for 20 min at room temperature. Cells were blocked with 2% normal goat serum in DPBS with 1% BSA and washed with 0.1% Tween 20.

This image was generated using the ascites version of the product.

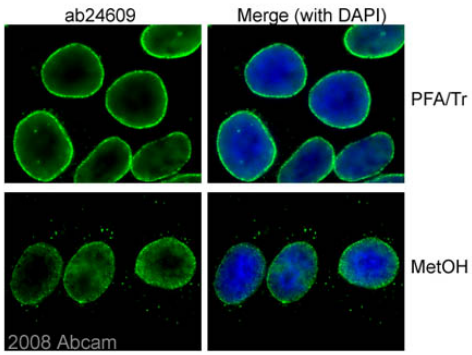



Immunocytochemistry/ Immunofluorescence - Anti-Nuclear Pore Complex Proteins antibody [Mab414] - ChIP Grade (ab24609)

This image is courtesy of an Abreview submitted by Dr Kirk McManus

ab24609 (1/200) stainig nuclear pore complex proteins in human RPE-1 cells (green). Cells were fixed in paraformaldehyde, permeabilised with Triton X100 and counterstained with DAPI in order to highlight the nucleus (blue). Please refer to abreview for further experimental details.

This image was generated using the ascites version of the product.

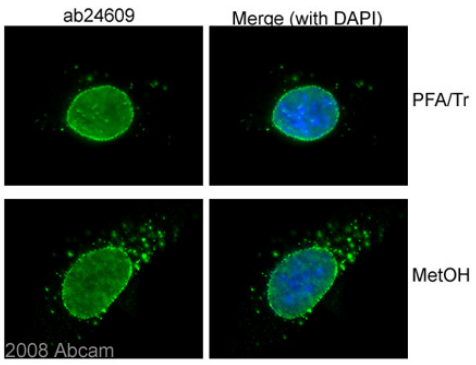



Immunocytochemistry/ Immunofluorescence - Anti-Nuclear Pore Complex Proteins antibody [Mab414] - ChIP Grade (ab24609)

Image and protocol kindly provided by Rosamaria Mangiacasale, Marilena Ciciarello and Patrizia Lavia, Univ Rome

ab24609 (1/500) staining nuclear pore complex proteins in human Hela Cells (green). Cells were fixed with Paraformaldehyde/Triton X-100 (10 min in PTEMF buffer (20mM PIPES, 1mM MgCl2, 10mM EGTA, 4% PFA) /0.2% Triton-X100 at room T°C) or Methanol (6 min in Methanol -20 °C , followed by 3 washes in 1x PBS) and counterstained with Dapi in order to highligh the nucleus (blue).

This image was generated using the ascites version of the product.




Immunocytochemistry/ Immunofluorescence - Anti-Nuclear Pore Complex Proteins antibody [Mab414] - ChIP Grade (ab24609)

Image and protocol kindly provided by Rosamaria Mangiacasale, Marilena Ciciarello and Patrizia Lavia, Univ Rome

ab24609 (1/500) staining nuclear pore complex proteins in murine NIH/3T3 Cells (green). Cells were fixed with Paraformaldehyde/Triton X-100 (10 min in PTEMF buffer (20mM PIPES, 1mM MgCl2, 10mM EGTA, 4% PFA) /0.2% Triton-X100 at room T°C) or Methanol (6 min in Methanol -20 °C , followed by 3 washes in 1x PBS) and counterstained with Dapi in order to highligh the nucleus (blue).

This image was generated using the ascites version of the product.



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