abcam

# ab184550

# Anti-NOLC1 antibody [EPR14896]

Recombinant | RabMAb

## Key facts

| | |
|---|---|
| **Isotype** | IgG |
| **Host species** | Rabbit |
| **Storage buffer** | pH: 7.2 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** | EPR14896 |
| **Purification technique** | Affinity purification Protein A |
| **Concentration** | 1.689 mg/mL The concentration of this product may be batch-dependent<br>Batch concentration finder → |

## Reactivity data

## WB

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | 1/10000 - 1/50000 |
| **Notes** | - |

### Predicted

| | |
|---|---|
| **Species** | Mouse |
| **Dilution info** | - |
| **Notes** | - |

## IHC-P

### Tested

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

### Predicted

| | |
|---|---|
| **Species** | Mouse |
| **Dilution info** | - |
| **Notes** | - |

## ICC/IF

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | 1/500 |
| **Notes** | - |

### Predicted

| | |
|---|---|
| **Species** | Mouse |
| **Dilution info** | - |
| **Notes** | - |

## Flow Cyt (Intra)

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | 1/300 |
| **Notes** | ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody. |

### Predicted

| | |
|---|---|
| **Species** | Mouse |
| **Dilution info** | - |
| **Notes** | - |

## Target data

See full target information NOLC1

| | |
|---|---|
| **Function** | Nucleolar protein that acts as a regulator of RNA polymerase I by connecting RNA polymerase I with enzymes responsible for ribosomal processing and modification (PubMed:10567578, PubMed:26399832). Required for neural crest specification: following monoubiquitination by the BCR(KBTBD8) complex, associates with TCOF1 and acts as a platform to connect RNA polymerase I with enzymes responsible for ribosomal processing and modification, leading to remodel the translational program of differentiating cells in favor of neural crest specification (PubMed:26399832). Involved in nucleologenesis, possibly by playing a role in the maintenance of the fundamental structure of the fibrillar center and dense fibrillar component in the nucleolus (PubMed:9016786). It has intrinsic GTPase and ATPase activities (PubMed:9016786). |

## Storage

| | |
|---|---|
| **Shipped at conditions** | Conditional Ambient |
| **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

**Patented technology**
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

**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.

## Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

| | |
|---|---|
| **Activity summary** | NOLC1 which also goes by the alternative name nucleolar and coiled-body phosphoprotein 1 has an important role in cellular mechanics. This protein weighs around 76 kDa. NOLC1 localizes in the nucleolus which means it has a strong connection to ribosome biogenesis in the cell. You will often find NOLC1 expressed in various human tissues particularly those with high proliferative capacity. |
| **Biological function summary** | Nucleolus assembly and maintenance depend notably on pathways involving NOLC1. It acts as part of an essential multiprotein complex. NOLC1 interacts with other nucleolar proteins to maintain nucleolar structure and facilitate ribosomal RNA (rRNA) synthesis. Its activities support the structural and functional integrity needed for efficient ribosome production. |
| **Pathways** | Ribosome biogenesis forms the critical framework where NOLC1 operates. This protein interacts closely within the RNA polymerase I transcription machinery and rRNA processing pathways working alongside proteins like fibrillarin and UBF1. NOLC1's presence within these pathways helps in coordinating the transcriptional and structural elements necessary for ribosome assembly. |
| **Associated diseases and disorders** | Aberrant NOLC1 function links to cancer and neurodegenerative diseases. Elevated NOLC1 levels sometimes correlate with increased tumor growth connecting it to malignant processes. Its interactions with proteins such as tumor protein p53 highlight its importance in regulating cell cycle and stress responses. Additionally disruptions in its nucleolar roles have potential associations with neurodegenerative disorders indicating its critical role beyond normal cellular functions. |

## 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.

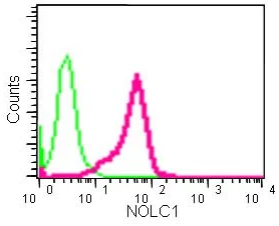
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In the unlikely event of one of our products not working as expected, you are covered by our product promise.

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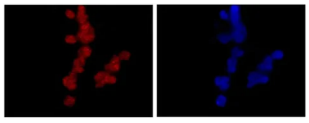
## 4 product images




### Flow Cytometry (Intracellular) - Anti-NOLC1 antibody [EPR14896] (ab184550)

NOLC1 Flow Cytometry (Intracellular) staining using rabbit Anti-NOLC1 antibody

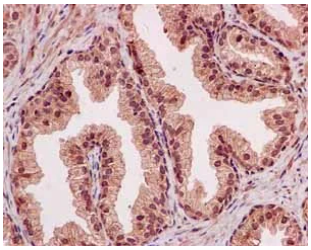
Intracellular flow cytometric analysis of 2% paraformaldehyde fixed HeLa cells labeling NOLC1 with ab184550 at a 1/300 dilution (red) or a rabbit IgG isotype control (green), followed by secondary Goat anti rabbit IgG (FITC) at 1/150 dilution.



### Immunocytochemistry/ Immunofluorescence - Anti-NOLC1 antibody [EPR14896] (ab184550)

NOLC1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-NOLC1 antibody

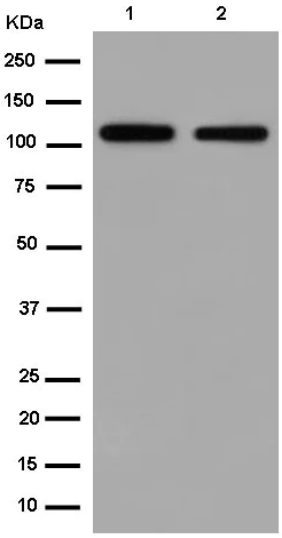
Immunofluorescence staining of -20☒ Acetone fixed K562 cells labeling NOLC1 using ab184550 at a 1/500 dilution (Red). Goat anti rabbit IgG (Alexa Fluor® 555) secondary at a 1/200 dilution. Counterstained with Dapi (blue).



## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NOLC1 antibody [EPR14896] (ab184550)

NOLC1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-NOLC1 antibody

Immunohistochemical analysis of paraffin-embedded Human prostate tissue labeling NOLC1 at a 1/100 dilution, counterstained with Hematoxylin.




## Western blot - Anti-NOLC1 antibody [EPR14896] (ab184550)

All lanes:
Western blot - Anti-NOLC1 antibody [EPR14896] (ab184550) at 1/50000 dilution

Lane 1:
K562 cell lysate at 20 µg

Lane 2:
HeLa cell lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 74 kDa

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