abcam

ab171074

Anti-Nup153 antibody [EPR7606(2)(B)]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 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	EPR7606(2)(B)
Purification technique	Affinity purification Protein A
Concentration	0.3805 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000 - 1/10000
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100 - 1/250
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/10 - 1/100
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Not recommended

Species	Mouse
Dilution info	-
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Species	Rat
Dilution info	-
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Target data

See full target information NUP153

Function	Component of the nuclear pore complex (NPC), a complex required for the trafficking across the nuclear envelope. Functions as a scaffolding element in the nuclear phase of the NPC essential for normal nucleocytoplasmic transport of proteins and mRNAs. Involved in the quality control and retention of unspliced mRNAs in the nucleus; in association with TPR, regulates the nuclear export of unspliced mRNA species bearing constitutive transport element (CTE) in a NXF1- and KHDRBS1-independent manner. Mediates TPR anchoring to the nuclear membrane at NPC. The repeat-containing domain may be involved in anchoring other components of the NPC to the pore membrane. Possible DNA-binding subunit of the nuclear pore complex (NPC). (Microbial infection) Interacts with HIV-1 capsid protein P24 and thereby promotes the integration of the virus in the nucleus of non-dividing cells (in vitro). (Microbial infection) Binds HIV-2 protein vpx and thereby promotes the nuclear translocation of the lentiviral genome (in vitro).

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	Nup153 also known as nucleoporin 153 is a component of the nuclear pore complex (NPC) with a molecular weight of approximately 153 kDa. It functions as a scaffold within the NPC which mediates the bidirectional transport of molecules between the nucleus and the cytoplasm. Nup153 is part of the FG-nucleoporin family characterized by domains rich in phenylalanine and glycine repeats. It is highly expressed in the nuclear envelope of eukaryotic cells playing a vital part in maintaining the permeability of the nuclear envelope.
Biological function summary	Nup153 contributes to the assembly and disassembly of the NPC during cell cycle progression. It acts as a docking site for various nuclear import and export receptors therefore is essential for nucleocytoplasmic transport. Nup153 is an important component in the larger nuclear pore complex which itself is made up of multiple nucleoporins forming a sophisticated structure capable of both passive and active transport processes.
Pathways	Nup153 is intricately involved in the nucleocytoplasmic transport pathway and plays a critical role in RNA processing. It interacts with proteins such as Importin β and Exportin which facilitate the transport of different molecules across the nuclear envelope. This pathway is fundamental for the proper regulation of gene

	expression and cell cycle control exhibiting the importance of Nup153 in cellular dynamics.
Associated diseases and disorders	Nup153 has been linked to cancer and neurodegenerative diseases. Alterations in Nup153 expression or function can disrupt cellular homeostasis leading to uncontrolled cell proliferation or impaired neuronal function. In cancer it may show altered interactions with p53 an important tumor suppressor protein affecting its regulatory functions. Understanding the role of Nup153 in such diseases may offer insights into potential therapeutic interventions.

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

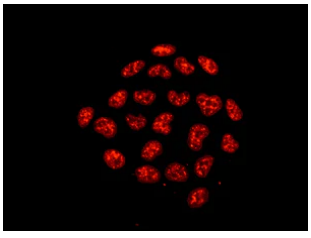
We do not recommend this combination. It is not covered by our product promise.

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.

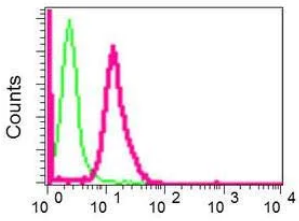
4 product images



Immunocytochemistry/ Immunofluorescence - Anti-Nup153 antibody [EPR7606(2)(B)] (ab171074)

Nup153 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Nup153 antibody

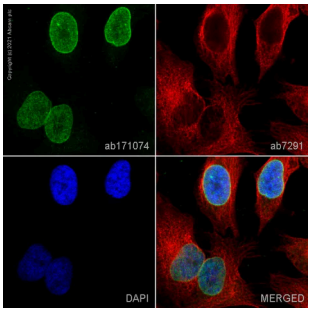
Immunofluorescent analysis of HeLa cells labeling Nup153 with ab171074 at 1/100 dilution.



Flow Cytometry (Intracellular) - Anti-Nup153 antibody [EPR7606(2)(B)] (ab171074)

Nup153 Flow Cytometry (Intracellular) staining using rabbit Anti-Nup153 antibody

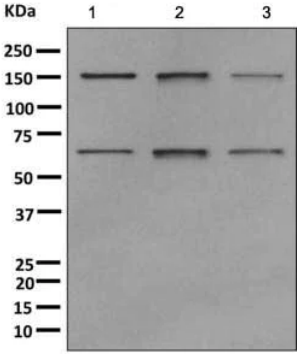
Intracellular flow cytometric analysis of permeabilized K562 cells labeling Nup153 with ab171074 at 1/10 dilution (red) or a rabbit IgG (negative) (green).



Immunocytochemistry/ Immunofluorescence - Anti-Nup153 antibody [EPR7606(2)(B)] (ab171074)

Nup153 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Nup153 antibody

ab171074 staining Nup153 in HeLa cells. The cells were fixed with 4% paraformaldehyde (10 min) then permeabilized with 0.1% 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 with ab171074 at 0.4 µg/ml concentration and ab7291 (Mouse monoclonal to alpha Tubulin) at 1/1000 dilution overnight at +4°C followed by a further incubation at room temperature for 1h with a goat secondary antibody to rabbit IgG (Alexa Fluor® 488) (ab150081) at 2 µg/ml (shown in green) and a goat secondary antibody to mouse IgG (Alexa Fluor® 594) (ab150120) at 2 µg/ml (shown in red). Nuclear DNA was labelled in blue with DAPI.
Image was taken with a confocal microscope (Leica-Microsystems TCS SP8).



Western blot - Anti-Nup153 antibody [EPR7606(2)(B)] (ab171074)

Nup153 Western blot staining using rabbit Anti-Nup153 antibody

All lanes:
Western blot - Anti-Nup153 antibody [EPR7606(2)(B)] (ab171074) at 1/1000 dilution

Lane 1:
HeLa cell lysate at 10 µg

Lane 2:
K562 cell lysate at 10 µg

Lane 3:
HepG2 cell lysate at 10 µg

Predicted band size: 154 kDa

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