abcam

ab50279

Anti-Nucleolin antibody

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.4 Preservative: 0.097% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Polyclonal
Immunogen	Synthetic Peptide within Human NCL aa 1-50 conjugated to Keyhole Limpet Haemocyanin. The exact immunogen used to generate this antibody is proprietary information. Database link P19338
Purification technique	Affinity purification Immunogen
Concentration	1.3 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	This antibody has been affinity-purified using the immunizing peptideimmobilized on agarose.

Reactivity data

IP

Expected

Species	Mouse
Dilution info	-
Notes	1-2 ug/ml immunoprecipitates Nucleolin from 250 ug RIPA lysate of human HeLa cells.

Species	Rat
Dilution info	-
Notes	1-2 ug/ml immunoprecipitates Nucleolin from 250 ug RIPA lysate of human HeLa cells.

Species	Human
Dilution info	-
Notes	1-2 ug/ml immunoprecipitates Nucleolin from 250 ug RIPA lysate of human HeLa cells.

Predicted

Species	Cynomolgus monkey, Orangutan
Dilution info	-
Notes	-

Flow Cyt

Expected

Species	Mouse
Dilution info	-
Notes	ab171870 - Rabbit polyclonal IgG, is suitable for use as an isotype control with this antibody.

Species	Rat
Dilution info	-
Notes	ab171870 - Rabbit polyclonal IgG, is suitable for use as an isotype control with this antibody.

Species	Human
Dilution info	-
Notes	ab171870 - Rabbit polyclonal IgG, is suitable for use as an isotype control with this antibody.

Predicted

Species	Cynomolgus monkey, Orangutan
Dilution info	-
Notes	-

WB

Expected

Species	Mouse, Rat, Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Cynomolgus monkey, Orangutan
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	10-20 µg/mL
Notes	-

Predicted

Species	Cynomolgus monkey, Orangutan, Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information NCL

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.

Storage

Shipped at conditions	Blue Ice
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

Supplementary info

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

Activity summary	Nucleolin also known as C23 is a multifunctional protein mainly found in the nucleolus with a molecular weight of approximately 100 kDa. It plays a mechanical role in ribosomal RNA (rRNA) synthesis and ribosome biogenesis. Nucleolin is widely expressed in proliferating cells including HeLa culture and shows higher expression in cancer cells compared to normal cells. The nucleolin protein is involved in various nucleolar processes like the modulation of chromatin structure and nucleocytoplasmic transport.
Biological function summary	The nucleolin molecular weight protein contributes to regulating cellular processes such as chromatin remodeling rRNA transcription and mRNA stability. Nucleolin often forms complexes with various other proteins and nucleic acids enhancing its functionality within the cell nucleus. Its participation in processes like DNA replication and cell proliferation shows the central role nucleolin plays at the cellular level. It influences cellular responses by binding directly to specific RNA or DNA sequences.
Pathways	The nucleolin protein engages in major cellular pathways such as the RNA processing and p53 signaling pathways. Through the RNA processing pathway it interacts with proteins like fibrillarin to assist in rRNA maturation. Moreover within the p53 signaling pathway nucleolin regulates the activity of the tumor suppressor protein p53 impacting cell cycle progression and apoptosis. These interactions

	highlight nucleolin's role in maintaining cellular homeostasis and response to stress.
Associated diseases and disorders	The nucleolin protein often shows altered expression in cancers and cardiovascular diseases. In cancer nucleolin's high expression levels correlate with tumor progression and metastasis making it a potential target for cancer therapies. In cardiovascular diseases nucleolin interacts with proteins like VEGF to influence angiogenesis which affects disease progression. Understanding nucleolin's involvement in these diseases provides insight into potential therapeutic targets and 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

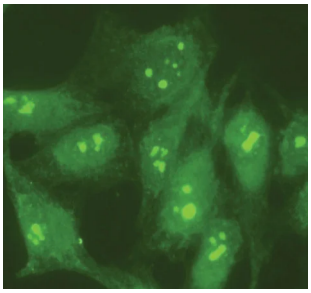
We do not recommend this combination. It is not covered by our product promise.

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.

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1 product image



Immunocytochemistry/ Immunofluorescence - Anti-Nucleolin antibody (ab50279)

Nucleolin Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Nucleolin antibody

Indirect Immunofluorescence Human HeLa cells were fixed and permeabilized with 4% paraformaldehyde followed by 0.5% Triton X-100. Fixed cells were stained with 10 µg/mL Anti-Nucleolin (ab50279). The antibody was developed with Goat Anti-Rabbit IgG, FITC conjugate.

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