abcam

ab248337

Anti-Nucleostemin antibody [EPR3911(2)] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR3911(2)
Purification technique	Affinity purification
Dissociation constant	6.76 x 10^{-11} M
Concentration	1.023 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Not recommended

Species	Human

Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Target data

See full target information GNL3

Function	May be required to maintain the proliferative capacity of stem cells. Stabilizes MDM2 by preventing its ubiquitination, and hence proteasomal degradation (By similarity).

Storage

Shipped at conditions	Blue Ice

Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab248337 is the carrier-free version of ab129185.

Species reactivity
Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

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.

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Supplementary info

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

Activity summary	Nucleostemin is a protein involved in cellular regulation and has an approximate mass of 60 kDa. It is also known by the alternative name GNL3. Mechanical function of nucleostemin involves involvement in the regulation of cell cycle and maintenance of stem cell properties. This protein is expressed mainly in the

	nucleolus and is found in abundance within stem cells and certain cancer cells where its levels change depending on cell cycle stages.
Biological function summary	Nucleostemin plays an important role in controlling cell proliferation and maintaining stem cell characteristics. It is not part of a large complex but interacts with other proteins to perform its functions. The protein facilitates the regulation of cell division and its presence in stem cells assures the maintenance of an undifferentiated state which is important for tissue regeneration and repair.
Pathways	Nucleostemin interacts with various cell cycle and DNA repair mechanisms. Among important biological pathways nucleostemin is involved in the p53 signaling pathway assisting in cellular stress responses and enabling cell survival during DNA damage. There is also a relationship with the MDM2 protein as nucleostemin indirectly influences p53 stability by modulating MDM2 activity therefore playing a role in tumor suppression and oncogenic processes.
Associated diseases and disorders	Researchers associate nucleostemin with cancer and neurological disorders. In cancers its overexpression is linked to the unchecked proliferation of tumor cells often observed in glioblastoma and certain sarcomas where nucleostemin interacts with proteins like p53 and MDM2 to influence tumor dynamics. In neurological contexts its role in stem cell regulation draws attention when considering diseases involving neurodegeneration where maintaining neural stem cells remains important.

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

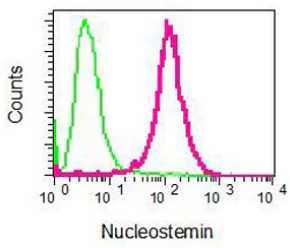
We do not recommend this combination. It is not covered by our product promise.

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.

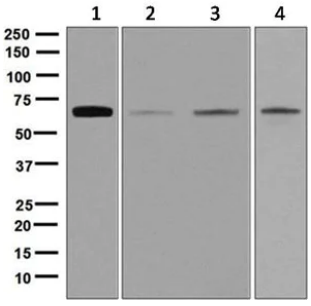
3 product images



Flow Cytometry (Intracellular) - Anti-Nucleostemin antibody [EPR3911(2)] - BSA and Azide free (ab248337)

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

This data was developed using ab129185, the same antibody clone in a different buffer formulation.
Intracellular flow cytometric analysis of permeabilized SW480 cells using ab129185 (red) at 1/10 dilution or a rabbit IgG (negative) (green).



Western blot - Anti-Nucleostemin antibody [EPR3911(2)] - BSA and Azide free (ab248337)

This data was developed using ab129185, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-Nucleostemin antibody [EPR3911(2)] (ab129185) at 1/1000 dilution

Lane 1:
HeLa cell lysate at 10 µg

Lane 2:
PC-3 cell lysate at 10 µg

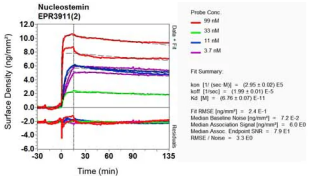
Lane 3:
SW480 cell lysate at 10 µg

Lane 4:
K562 cell lysate at 10 µg

Secondary

All lanes:
HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 62 kDa



OI-RD Scanning - Anti-Nucleostemin antibody [EPR3911(2)] - BSA and Azide free (ab248337)

We have systematically measured KD (the equilibrium dissociation constant between the antibody and its antigen), of more than 840 recombinant antibodies to assess not only their individual KD values but also to see the average affinity of antibody. Based on the comparison with published literature values for mouse monoclonal antibodies, Recombinant antibodies appear to be on average 1-2 order of magnitude higher affinity.

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