abcam

ab249826

Anti-NAP1L1 antibody [EPR12619] - 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	EPR12619
Purification technique	Affinity purification
Concentration	0.993 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Not recommended

Species	Human, Mouse, Rat
Dilution info	-

Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-

Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information NAP1L1

Function	Histone chaperone that plays a role in the nuclear import of H2A-H2B and nucleosome assembly (PubMed:20002496, PubMed:21211722, PubMed:26841755). Also participates in several important DNA repair mechanisms: greatly enhances ERCC6-mediated chromatin remodeling which is essential for transcription-coupled nucleotide excision DNA repair (PubMed:28369616). Also stimulates homologous recombination (HR) by RAD51 and RAD54 which is essential in mitotic DNA double strand break (DSB) repair (PubMed:24798879). Plays a key role in the regulation of embryonic neurogenesis (By similarity). Promotes the proliferation of neural progenitors and inhibits neuronal differentiation during cortical development (By similarity). Regulates neurogenesis via the modulation of RASSF10; regulates RASSF10 expression by promoting SETD1A-mediated H3K4 methylation at the RASSF10 promoter (By similarity). (Microbial infection) Positively regulates Epstein-Barr virus reactivation in epithelial cells through the induction of viral BZLF1 expression. (Microbial infection) Together with human herpesvirus 8 protein LANA1, assists the proper assembly of the nucleosome on the replicated viral DNA.

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

ab249826 is the carrier-free version of ab174836.

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	NAP1L1 also known as Nucleosome Assembly Protein 1-Like 1 plays a role mechanically by assisting in nucleosome assembly. This protein has a mass of about 45 kDa and is expressed in various tissues including the brain and liver. NAP1L1 moves within the nucleus and cytoplasm which allows interaction with DNA and other proteins involved in chromatin organization.
Biological function summary	NAP1L1 contributes to chromatin remodeling by facilitating the assembly and disassembly of nucleosomes. NAP1L1 forms part of a complex that modulates chromatin structure and function influencing gene expression and DNA replication. It interacts with histones contributing to the deposition and removal of histones H2A and H2B making it essential for proper cell cycle progression and regulation.
Pathways	NAP1L1 acts in key signaling interconnected with chromatin modification and cell cycle control. It participates in the histone chaperone pathways influencing chromatin structure dynamics. NAP1L1 associates with proteins like histone H2A-H2B and the chromatin assembly factor CAF-1. These proteins collectively maintain chromatin integrity and regulation during DNA replication and repair processes.
Associated diseases and disorders	NAP1L1 has links to certain cancers and neurological disorders. Increased levels of NAP1L1 are observable in some tumor types suggesting a role in cancer progression. In neurological contexts alterations in this protein are noted in

conditions like Alzheimer's disease where chromatin misregulation is apparent. Connections with other proteins such as histone variants may further implicate NAP1L1 in these pathological states.

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

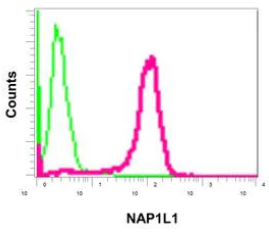
We do not recommend this combination. It is not covered by our product promise.

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.

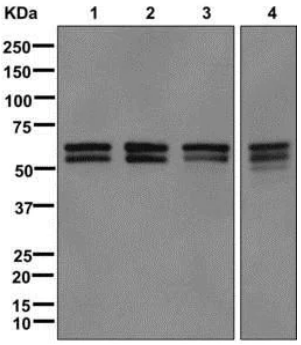
2 product images



Flow Cytometry (Intracellular) - Anti-NAP1L1 antibody [EPR12619] - BSA and Azide free (ab249826)

NAP1L1 Flow Cytometry (Intracellular) staining using rabbit Anti-NAP1L1 antibody

This data was developed using ab174836, the same antibody clone in a different buffer formulation.
Intracellular flow cytometric analysis of permeabilized Jurkat cells labeling NAP1L1with ab174836 at 1/10 dilution (red), or negative control rabbit IgG (green).



Western blot - Anti-NAP1L1 antibody [EPR12619] - BSA and Azide free (ab249826)

This data was developed using ab174836, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-NAP1L1 antibody [EPR12619] (ab174836) at 1/1000 dilution

Lane 1:
HeLa cell lysate at 10 µg

Lane 2:
Jurkat cell lysate at 10 µg

Lane 3:
293T cell lysate at 10 µg

Lane 4:
A431 cell lysate at 10 µg

Secondary

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

Developed using the ECL technique.

Predicted band size: 45 kDa

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