abcam

ab248319

Anti-NXF1 antibody [EPR8009] - 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	EPR8009
Purification technique	Affinity purification Protein A
Concentration	0.995 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Expected

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

WB

Expected

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

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Target data

See full target information NXF1

Function Involved in the nuclear export of mRNA species bearing retroviral constitutive transport elements (CTE) and in the export of mRNA from the nucleus to the cytoplasm (TAP/NFX1 pathway) (PubMed:10924507). The NXF1-NXT1 heterodimer is involved in the export of HSP70 mRNA in conjunction with ALYREF/THOC4 and THOC5 components of the TREX complex (PubMed:18364396, PubMed:19165146, PubMed:9660949). ALYREF/THOC4-bound mRNA is thought to be transferred to the NXF1-NXT1 heterodimer for export (PubMed:18364396, PubMed:19165146, PubMed:9660949). Also involved in nuclear export of m6A-containing mRNAs: interaction between SRSF3 and YTHDC1 facilitates m6A-containing mRNA-binding to both SRSF3 and NXF1, promoting mRNA nuclear export (PubMed:28984244).

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

ab248319 is the carrier-free version of ab129160.

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	NXF1 also known as TAP functions as an mRNA nuclear export factor. It plays a critical role in transporting mRNA from the nucleus to the cytoplasm. NXF1 protein mass is approximately 70 kDa. Researchers primarily observe its expression in

	various human tissues with higher expression in the liver and brain. The NXF1 protein interacts with nuclear pore complexes to facilitate mRNA transport making it important in gene expression regulation.
Biological function summary	This mRNA transport factor ensures correct mRNA localization and effective translation into proteins. NXF1 acts part of a multiprotein complex where it interacts with NXT1 to guide mature mRNA to the nuclear pore for export. This action is central for maintaining cellular protein homeostasis and enables proper cellular responses to different stimuli. Disruptions in NXF1 function can cause interruptions in the mRNA export process impacting protein synthesis.
Pathways	NXF1 takes part in essential cellular processes related to nucleocytoplasmic transport. It operates within the mRNA export pathway ensuring mRNAs navigate from the nucleus to the cytoplasm. NXF1 closely works with other export factors such as NUP98 in this pathway. Additionally it associates with the spliceosome helping to coordinate the export of correctly spliced mRNA which is important for efficient gene expression and cellular function.
Associated diseases and disorders	NXF1 alterations have connections to certain types of cancer and neurological disorders. For instance malfunction in its mRNA export role can contribute to tumorigenesis as seen with breast cancer by misregulating gene expression. In neurological diseases like amyotrophic lateral sclerosis (ALS) defects in mRNA transport can impair neuronal function. Genetic disruptions impacting NXF1 dynamics often involve proteins like FUS which also participate in RNA metabolism and are linked to similar disorders.

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

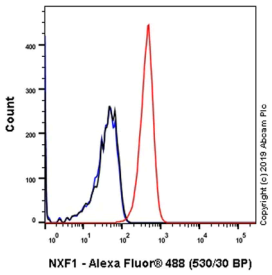
We do not recommend this combination. It is not covered by our product promise.

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.

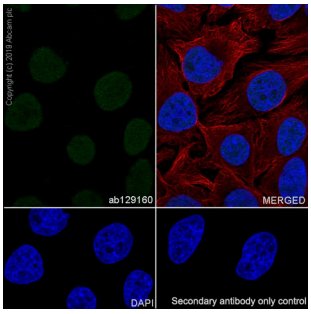
2 product images



Flow Cytometry (Intracellular) - Anti-NXF1 antibody [EPR8009] - BSA and Azide free (ab248319)

NXF1 Flow Cytometry (Intracellular) staining using rabbit Anti-NXF1 antibody

Intracellular Flow Cytometry analysis of HepG2 (Human hepatocellular carcinoma epithelial cell) cells labeling NXF1 with purified ab129160 at 1/20 dilution (5 µg/ml) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue). This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab129160)



Immunocytochemistry/ Immunofluorescence - Anti-NXF1 antibody [EPR8009] - BSA and Azide free (ab248319)

NXF1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-NXF1 antibody

Immunocytochemistry/ Immunofluorescence analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling NXF1 with purified ab129160 at 1/200 dilution (0.62 µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1/1000 (2 µg/ml) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab129160)

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