abcam

ab129160

Anti-NXF1 antibody [EPR8009]

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	EPR8009
Purification technique	Affinity purification Protein A
Concentration	0.128 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	1/10 - 1/100
Notes	-

WB

Tested

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

ICC/IF

Tested

Species	Human
Dilution info	1/200 - 1/500
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/20
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 Conditional Ambient

Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Storage information	Stable for 12 months at -20°C

Notes

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.

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

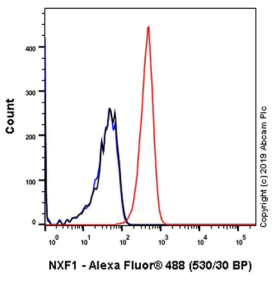
We do not recommend this combination. It is not covered by our product promise.

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.

7 product images

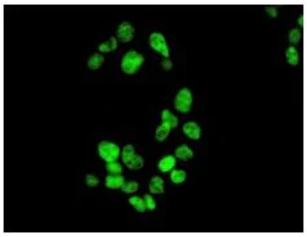


Flow Cytometry (Intracellular) - Anti-NXF1 antibody [EPR8009] (ab129160)

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

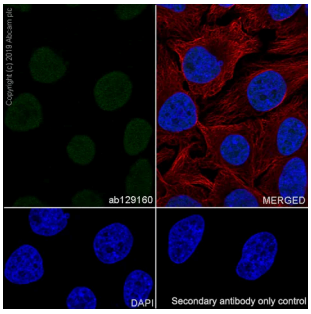
(Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Immunocytochemistry/ Immunofluorescence - Anti-NXF1 antibody [EPR8009] (ab129160)

NXF1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-NXF1 antibody

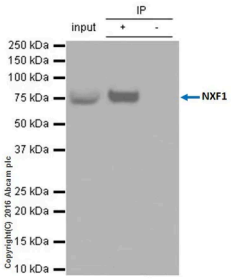
ab129160 at 1/250 dilution staining NXF1 in HepG2 cells by immunofluorescence.



Immunocytochemistry/ Immunofluorescence - Anti-NXF1 antibody [EPR8009] (ab129160)

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.



Immunoprecipitation - Anti-NXF1 antibody [EPR8009] (ab129160)

ab129160 at 1/20 immunoprecipitating NXF1 in HeLa (human cervix adenocarcinoma) whole cell lysate observed at 70 KDa (Lanes 1 and 2).
Lane 1 (input): HeLa whole cell lysate, 10µg
Lane 2 (+): ab129160 + HeLa whole cell lysate
Lane 3 (-): Rabbit monoclonal IgG (ab172730) instead of ab129160 in HeLa whole cell lysate

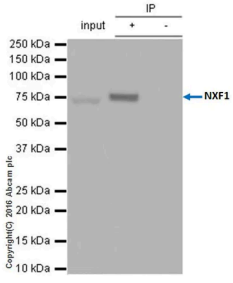
For western blotting, ab129160 at 1/500 dilution and ab131366 VeriBlot for IP (HRP) at 1/1000 were used.

Blocking and Diluting buffer and concentration: 5% NFDM/TBST.

All lanes:
Immunoprecipitation - Anti-NXF1 antibody [EPR8009] (ab129160)

Predicted band size: 70 kDa

Exposure time: 1s



Immunoprecipitation - Anti-NXF1 antibody [EPR8009] (ab129160)

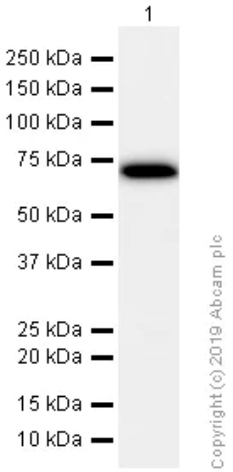
ab129160 at 1/20 immunoprecipitating NXF1 in HepG2 (human hepatocellular carcinoma) whole cell lysate observed at 70 KDa (Lanes 1 and 2).
Lane 1 (input): HepG2 whole cell lysate, 10µg
Lane 2 (+): ab129160 + HepG2 whole cell lysate
Lane 3 (-): Rabbit monoclonal IgG (ab172730) instead of ab129160 in HepG2 whole cell lysate

For western blotting, ab129160 at 1/500 dilution and ab131366 VeriBlot for IP (HRP) at 1/1000 were used.

Blocking and Diluting buffer and concentration: 5% NFDM/TBST.
All lanes:
Immunoprecipitation - Anti-NXF1 antibody [EPR8009] (ab129160)

Predicted band size: 70 kDa

Exposure time: 1s



Western blot - Anti-NXF1 antibody [EPR8009] (ab129160)

All lanes:
Western blot - Anti-NXF1 antibody [EPR8009] (ab129160) at 1/2000 dilution

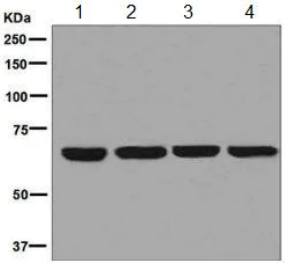
All lanes:
K-562 (Human chronic myelogenous leukemia lymphoblast) whole cell lysates at 15 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

Predicted band size: 70 kDa

Observed band size: 70 kDa



Western blot - Anti-NXF1 antibody [EPR8009] (ab129160)

All lanes:
Western blot - Anti-NXF1 antibody [EPR8009] (ab129160) at 1/1000 dilution

Lane 1:
HeLa cell lysate at 10 µg

Lane 2:
293T cell lysate at 10 µg

Lane 3:
K562 cell lysate at 10 µg

Lane 4:
HepG2 cell lysate at 10 µg

Secondary

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

Predicted band size: 70 kDa

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