abcam

Product datasheet

Anti-NXF1 antibody [EPR8009] - BSA and Azide free ab248319

Recombinant RabMAb

3 Images

Overview

Product name	Anti-NXF1 antibody [EPR8009] - BSA and Azide free
Description	Rabbit monoclonal [EPR8009] to NXF1 - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** ICC/IF, Flow Cyt (Intra), IP, WB
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HeLa, 293T, K-562 and HepG2 lysates. ICC/IF: HeLa cells. Flow Cyt (intra): HepG2 cells.
General notes	ab248319 is the carrier-free version of **ab129160**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. 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. 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. 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 production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**. Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with

these species. Please contact us for more information.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR8009
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab248319 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		Use at an assay dependent concentration.
Flow Cyt (Intra)		Use at an assay dependent concentration.
IP		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Detects a band of approximately 70 kDa (predicted molecular weight: 70 kDa).

Target

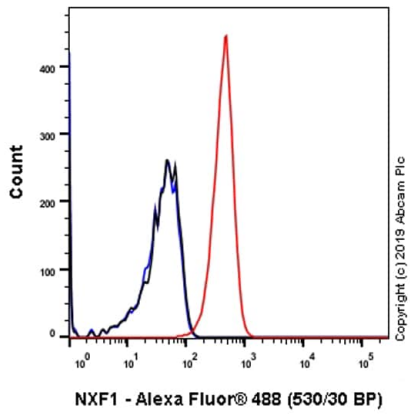
Function	Involved in the nuclear export of mRNA species bearing retroviral constitutive transport elements (CTE) and in the export of mRNA from the nucleus to the cytoplasm. The NXF1-NXT1 heterodimer is involved in the export of HSP70 mRNA in conjunction with THOC4 and THOC5.
Tissue specificity	Expressed ubiquitously.
Sequence similarities	Belongs to the NXF family. Contains 4 LRR (leucine-rich) repeats. Contains 1 NTF2 domain. Contains 1 RRM (RNA recognition motif) domain. Contains 1 TAP-C domain.
Domain	The minimal CTE binding domain consists of an RNP-type RNA binding domain (RBD) and leucine-rich repeats. The nucleoporin binding domain consists of a NTF2 domain (also called NTF2-like domain) and a TAP-C domain (also called UBA-like domain). It has 2 nucleoporin-FG-repeats binding sites (one

in the NTF2 and the other in the TAP-C domain) which contribute to nucleoporin association and act synergistically to export cellular mRNAs.
The NTF2 domain is functional only in the presence of NXT1 and is essential for the export of mRNA from the nucleus.
The TAP-C domain mediates direct interactions with nucleoporin-FG-repeats and is necessary and sufficient for localization of NXF1 to the nuclear rim. The conserved loop 594-NWD-596 of the TAP-C domain has a critical role in the interaction with nucleoporins.
The leucine-rich repeats are essential for the export of mRNA from the nucleus.
The RNA-binding domain is a non-canonical RNP-type domain.

Cellular localization

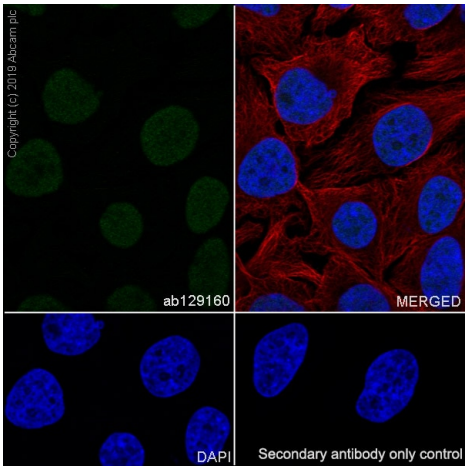
Nucleus > nucleoplasm. Nucleus speckle. Cytoplasm. Localized predominantly in the nucleoplasm and at both the nucleoplasmic and cytoplasmic faces of the nuclear pore complex. Shuttles between the nucleus and the cytoplasm. Travels to the cytoplasm as part of the exon junction complex (EJC) bound to mRNA.

Images



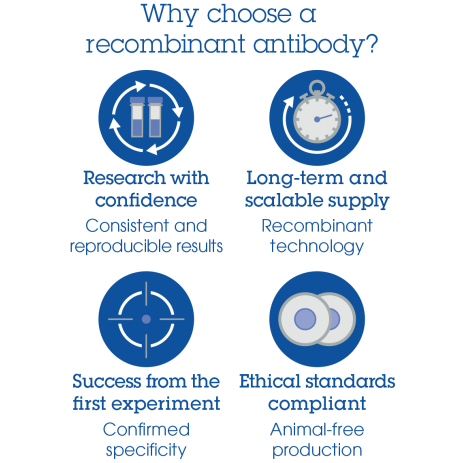
Flow Cytometry (Intracellular) - Anti-NXF1 antibody [EPR8009] - BSA and Azide free (ab248319)

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)

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**)



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

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