abcam

ab251080

Anti-NXN/NRX antibody [EPR15177] - 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	EPR15177

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

WB

Tested

Species	Mouse, Human, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Mouse
Dilution info	-
Notes	-

Expected

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

IHC-P

Tested

Species	Mouse, Human
Dilution info	-
Notes	-

Expected

Species	Rat

Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information NXN

Function	Functions as a redox-dependent negative regulator of the Wnt signaling pathway, possibly by preventing ubiquitination of DVL3 by the BCR(KLHL12) complex. May also function as a transcriptional regulator act as a regulator of protein phosphatase 2A (PP2A) (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

ab251080 is the carrier-free version of ab191429.

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	NXN also known as nucleoredoxin or NRX is a redox-regulating protein that plays a role in cellular signaling. This protein weighs approximately 49 kDa and is expressed in a wide range of tissues including heart liver and lungs. It's known for its function in controlling redox states within cells. NXN acts within the cytoplasm where it interacts with other proteins to influence various signaling pathways. Given its importance scientists often study NXN to understand how cells manage oxidative stress and maintain equilibrium.
Biological function summary	NXN acts as a thioredoxin-like protein that regulates the Wnt signaling pathway through its interaction with disheveled proteins. This protein is often involved in cellular processes by managing the balance between oxidative and reductive states critical for normal cellular function. NXN exists in cells as part of larger protein assemblies which allows it to control multiple signaling hubs within the cell. This ability makes NXN integral to the modulation of cellular responses and adaptation to changes in environmental conditions.
Pathways	NXN is influential in the Wnt and JNK signaling pathways. In the Wnt signaling pathway NXN influences cellular fate decisions by regulating the availability of disheveled proteins. It also interacts with components of the JNK signaling pathway which is involved in controlling apoptosis and stress responses. Proteins such as β-catenin and JNK3 are affected by NXN's function highlighting its extensive reach in cellular mechanism and signaling control.
Associated diseases and disorders	NXN has links to cancer and neurodegenerative diseases. Dysregulation in NXN can lead to abnormal cell proliferation linking it to the development of tumors. Its involvement in oxidative stress also places it in connection with neurodegenerative disorders like Alzheimer's disease. In cancer its interaction with proteins like p53 highlights its role in maintaining genomic stability. In the context of neurodegeneration NXN's relationship with proteins such as β-amyloid illustrates its potential involvement in disease progression and pathology.

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.

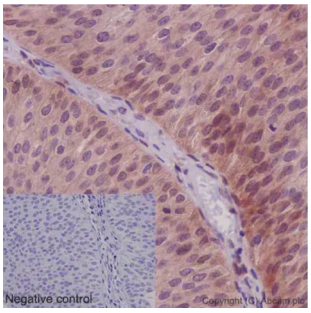
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

---

6 product images

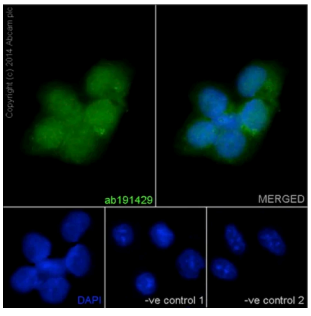


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NXN/NRX antibody [EPR15177] - BSA and Azide free (ab251080)

NXN/NRX Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-NXN/NRX antibody

This data was developed using ab191429, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded human transitional cell carcinoma of bladder tissue labeling NXN/NRX with ab191429 at 1/100 with prediluted HRP Polymer for Rabbit IgG as secondary antibody. Negative control: Using PBS instead of primary antibody.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

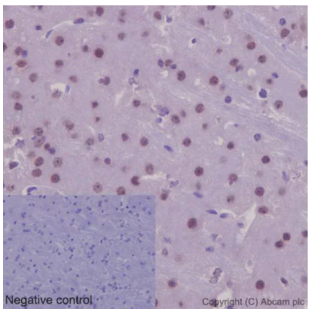


Immunocytochemistry/ Immunofluorescence - Anti-NXN/NRX antibody [EPR15177] - BSA and Azide free (ab251080)

NXN/NRX Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-NXN/NRX antibody

This data was developed using ab191429, the same antibody clone in a different buffer formulation.
Immunofluorescent analysis of paraformaldehyde-fixed A431 cells labeling NXN/NRX with ab191429 at 1/250, Goat anti rabbit IgG (Alexa Fluor® 488) at 1/200 and DAPI staining (blue). The two negative controls: 1. Primary ab concentration (anti-NXN/NRX) is 1/100 dilution, Secondary ab (Goat anti mouse IgG (Alexa Fluor®594)) is 1/400 dilution; 2. Primary ab concentration (anti-

NXN/NRX) is 1/100 dilution, Secondary ab (Goat anti mouse IgG (Alexa Fluor®594)) is 1/400 dilution.

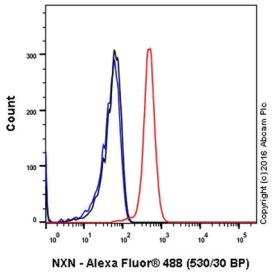


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NXN/NRX antibody [EPR15177] - BSA and Azide free (ab251080)

NXN/NRX Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-NXN/NRX antibody

This data was developed using ab191429, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded mouse brain tissue labeling NXN/NRX with ab191429 at 1/100 with prediluted HRP Polymer for Rabbit IgG as secondary antibody. Negative control: Using PBS instead of primary antibody.

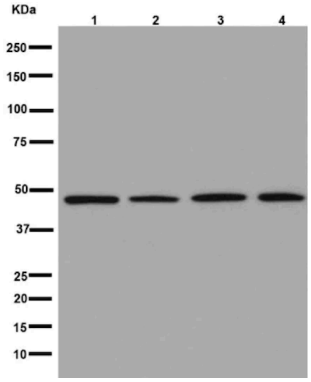
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-NXN/NRX antibody [EPR15177] - BSA and Azide free (ab251080)

NXN/NRX Flow Cytometry (Intracellular) staining using rabbit Anti-NXN/NRX antibody

This data was developed using ab191429, the same antibody clone in a different buffer formulation.
Intracellular Flow Cytometry analysis of NIH/3T3 (mouse embryo) labelling NXN/NRX with purified ab191429 at 1/1000 (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. Alexa Fluor® 488 goat anti-rabbit IgG (1/2000) was used as the secondary antibody. Black - Isotype control, rabbit monoclonal IgG. Blue - Unlabelled control, cells without incubation with primary and secondary antibodies.



Western blot - Anti-NXN/NRX antibody [EPR15177] - BSA and Azide free (ab251080)

This data was developed using ab191429, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-NXN/NRX antibody [EPR15177] (ab191429) at 1/10000 dilution

Lane 1:
293 lysate at 20 µg

Lane 2:
HepG2 lysate at 20 µg

Lane 3:
HeLa lysate at 20 µg

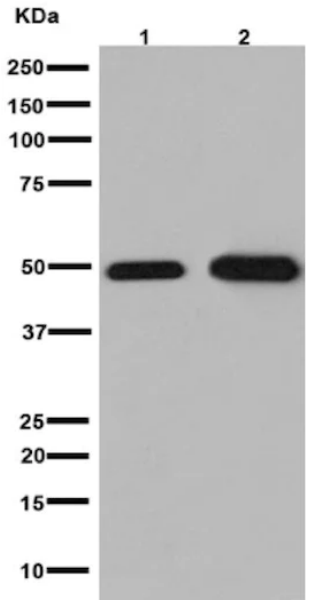
Lane 4:
SH-SY5Y lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L),Peroxidase conjugated at 1/1000 dilution

Predicted band size: 48 kDa

Observed band size: 48 kDa



Western blot - Anti-NXN/NRX antibody [EPR15177] - BSA and Azide free (ab251080)

NXN/NRX Western blot staining using rabbit Anti-NXN/NRX antibody

This data was developed using ab191429, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-NXN/NRX antibody [EPR15177] (ab191429) at 1/10000 dilution

Lane 1:
Mouse testis lysate at 10 µg

Lane 2:
Rat testis lysate at 10 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 48 kDa

Observed band size: 48 kDa

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