abcam

ab289990

Anti-NP-I antibody [EPR25683-64] - BSA and Azide free

Anti-NP-I antibody [EPR25683-64] - BSA and Azide free (ab289990) is a rabbit recombinant monoclonal antibody provided in a PBS only buffer for easy conjugation detecting NP-I in **Western Blot, Flow Cytometry (Intra), IP, IHC-P**. Suitable for **Human, Mouse, Rat**.

- BSA, sodium azide, and glycerol-free for easy conjugation
- Biophysical QC for unrivalled batch-batch consistency

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	EPR25683-64
Purification technique	Affinity purification Protein A
Specificity	This antibody does not react with Rat species for Flow cytometry.
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Not recommended

Species	Mouse, Rat, Human, Recombinant fragment - Human
Dilution info	-
Notes	-

IP

Tested

Species	Mouse, Human
Dilution info	-
Notes	-

Expected

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

Not recommended

Species	Recombinant fragment - Human
Dilution info	-
Notes	-

WB

Tested

Species	Recombinant fragment - Human, Mouse, Rat, Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	Not suitable with Rat.

Expected

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

Not recommended

Species	Rat
Dilution info	-
Notes	Not suitable with Rat.

Species	Recombinant fragment - Human
Dilution info	-
Notes	-

IHC-P

Tested

Species	Mouse
Dilution info	-
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Rat
Dilution info	-
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Human

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

Not recommended

Species	Recombinant fragment - Human
Dilution info	-
Notes	-

Target data

See full target information NPTX1_HUMAN

Function	May be involved in mediating uptake of synaptic material during synapse remodeling or in mediating the synaptic clustering of AMPA glutamate receptors at a subset of excitatory synapses.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Notes

What is this antibody validated in?
Anti-NP-I antibody [EPR25683-64] - BSA and Azide free (ab289990) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Flow Cytometry (Flow Cyt), Immunoprecipitation (IP), Immunohistochemistry (IHC-P) in Human, Mouse, Rat samples.

What is the molecular weight of NP-I?
Anti-NP-I [EPR25683-64] - BSA and Azide free (ab289990) specifically detects a band for NP-I (UniProt: Q15818) at a molecular weight of 47kDa.

Other related products
We have a range of other formats of antibody clone [EPR25683-64] also available for your convenience: ab289966, Carrier free - ab289990

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	NP-I also known as NP protein or NP-BSA functions as a nucleoprotein component of ribonucleoprotein complexes. It has a mass of 56 kDa. Expression occurs in both the cytoplasm and nucleus of infected cells. Ribonucleoproteins with NP-I encapsulate viral RNA which helps in the process of viral replication and transcription. NP-I is essential for forming the ribonucleoprotein core stabilizing the viral genome and facilitating interactions with the polymerase.
Biological function summary	NP-I plays important roles in the life cycle of certain viruses. It associates with NP-TX1 another protein component to ensure effective assembly of the viral replication machinery. NP-I is also part of a complex that maintains the integrity of the viral RNA. It modulates host cell responses to viral infection by interacting with host cellular proteins impacting viral pathogenicity and replication efficiency.
Pathways	NP-I interacts with the RNA replication and transcription processes of viruses. It participates in the influenza virus life cycle pathway where NP protein coordinates with polymerase subunits like PB1 PB2 and PA to facilitate RNA synthesis. These interactions and pathways are critical for understanding how viruses exploit host cellular machinery to perpetuate their replication cycles. Specifically NP-I contributes to the assembly and regulation of viral RNA genomes within host cells.
Associated diseases and disorders	NP-I is connected to viral infections like influenza. It has a pivotal role in facilitating viral replication and immune evasion influencing the severity of

influenza manifestations. The interaction between NP-I and host proteins like interferon regulators can modulate immune responses potentially leading to immune system disorders. By understanding these interactions scientists can develop therapeutic interventions targeting NP-I to control or mitigate influenza viral infections.

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

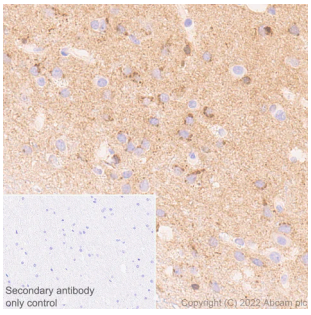
We do not recommend this combination. It is not covered by our product promise.

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.

11 product images



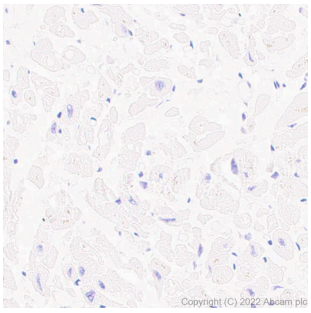
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NP-I antibody [EPR25683-64] - BSA and Azide free (ab289990)

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

This data was developed using ab289966, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded Human cerebrum tissue labelling NP-I with ab289966 at 1/2000 followed by LeicaDS9800 (Bond™, Polymer Refine Detection). Positive staining on human cerebrum. The section was incubated with ab289966 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: PBS instead of primary antibody, followed by LeicaDS9800 (Bond™, Polymer Refine Detection).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

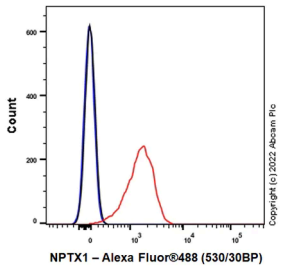


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NP-I antibody [EPR25683-64] - BSA and Azide free (ab289990)

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

This data was developed using ab289966, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded Human cardiac muscle tissue labelling NP-I with ab289966 at 1/2000 followed by LeicaDS9800 (Bond™, Polymer Refine Detection). **Negative control:** no staining on human heart. The section was incubated with ab289966 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

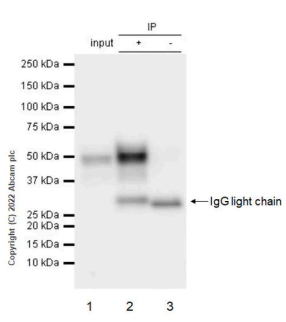
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.



Flow Cytometry (Intracellular) - Anti-NP-I antibody [EPR25683-64] - BSA and Azide free (ab289990)

NP-I Flow Cytometry (Intracellular) staining using rabbit Anti-NP-I antibody

This data was developed using ab289966, the same antibody clone in a different buffer formulation.
Flow cytometric analysis of 4% paraformaldehyde fixed, 90% methanol permeabilized HeLa (Human cervix adenocarcinoma epithelial cell) cells labelling NP-I with ab289966 at 1/500 dilution (0.1ug) (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/2000 dilution was used as the secondary antibody.



Immunoprecipitation - Anti-NP-I antibody [EPR25683-64] - BSA and Azide free (ab289990)

This data was developed using ab289990, the same antibody clone in a different buffer formulation.
NP-I was immunoprecipitated from HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate with ab2568364 at 1/30 dilution (2ug in 0.07mg lysates). Western blot was performed on the immunoprecipitate using anti npi antibody epr2568364 immunoprecipitation hela.jpg at 1/5000 dilution. Peroxidase IgG Fraction Monoclonal Mouse Anti-Rabbit IgG, light chain specific was used at 1/100000 dilution.

Lane 1: HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate 2ug

Lane 2: ab2568364 IP in HeLa whole cell lysate

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab289966 in HeLa whole cell lysate

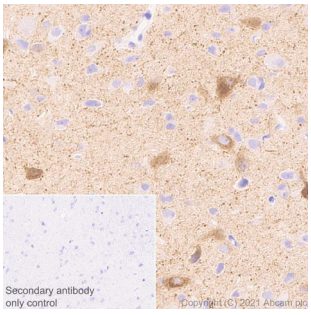
Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 3.25 seconds

The 38KDa band might be NPTX1 fragmemts (PMID: 29501530).
All lanes:
Immunoprecipitation - Anti-NP-I antibody [EPR25683-64] (ab289966)

Predicted band size: 47 kDa

Observed band size: 38 kDa, 50 kDa



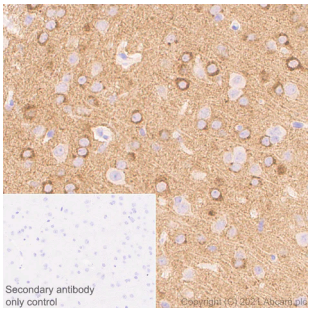
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NP-I antibody [EPR25683-64] - BSA and Azide free (ab289990)

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

This data was developed using ab289966, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded Rat cerebrum tissue labelling NP-I with ab289966 at 1/2000 followed by LeicaDS9800 (Bond™, Polymer Refine Detection). Positive staining on rat cerebrum. The section was incubated with ab289966 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: PBS instead of primary antibody, followed by LeicaDS9800 (Bond™, Polymer Refine Detection).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.



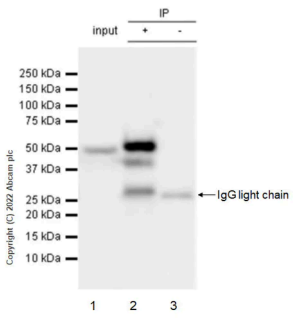
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NP-I antibody [EPR25683-64] - BSA and Azide free (ab289990)

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

This data was developed using ab289966, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded Mouse cerebrum tissue labelling NP-I with ab289966 at 1/2000 followed by LeicaDS9800 (Bond™, Polymer Refine Detection) was used. Positive staining on mouse cerebrum. The section was incubated with ab289966 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: PBS instead of primary antibody, followed by LeicaDS9800 (Bond™, Polymer Refine Detection).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.



Immunoprecipitation - Anti-NP-I antibody [EPR25683-64] - BSA and Azide free (ab289990)

This data was developed using ab289966, the same antibody clone in a different buffer formulation.
NP-I was immunoprecipitated from Mouse hypothalamus tissue lysate with ab289966 at 1/30 dilution (2ug in 0.175mg lysates). Western blot was performed on the immunoprecipitate using ab289966 at 1/5000 dilution. Peroxidase IgG Fraction Monoclonal Mouse Anti-Rabbit IgG, light chain specific was used at 1/100000 dilution.

Lane 1: Mouse hypothalamus tissue lysate 5 ug

Lane 2: ab289966 IP in Mouse hypothalamus tissue lysate

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab289966 in Mouse hypothalamus tissue lysate

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

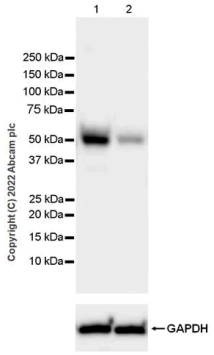
Exposure time: 3.25 seconds

The 38KDa band might be NPTX1 fragmemts (PMID: 29501530).

All lanes:
Immunoprecipitation - Anti-NP-I antibody [EPR25683-64] (ab289966)

Predicted band size: 47 kDa

Observed band size: 38 kDa, 50 kDa



Western blot - Anti-NP-I antibody [EPR25683-64] - BSA and Azide free (ab289990)

NP-I Western blot staining using rabbit Anti-NP-I antibody

This data was developed using ab289966, the same antibody clone in a different buffer formulation.
Blocking and diluting buffer and concentration: 5% NFDM/TBST

Exposure time: 10 seconds

All lanes:
Western blot - Anti-NP-I antibody [EPR25683-64] (ab289966) at 1/1000 dilution

Lane 1:
HeLa (human cervix adenocarcinoma epithelial cell) transfected with scrambled siRNA control whole cell lysate at 16 µg

Lane 2:
HeLa transfected with siRNA specifically targeti NPTX1 whole cell lysate at 16 µg

Secondary

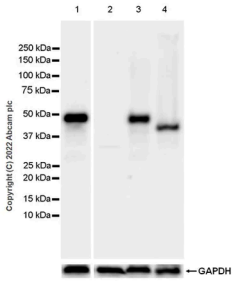
Lanes 1 - 2:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/100000 dilution

Lanes 1 - 2:

Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 47 kDa

Observed band size: 50 kDa



Western blot - Anti-NP-I antibody [EPR25683-64] - BSA and Azide free (ab289990)

NP-I Western blot staining using rabbit Anti-NP-I antibody

This data was developed using ab289966, the same antibody clone in a different buffer formulation.
Blocking and diluting buffer and concentration: 5% NFDM/TBST

NPTX1 is a glycosylated protein and can be deglycosylated by Protein Deglycosylation MIX II.

Negative control: human heart (PMID:7695898)

Exposure time: 7.75 seconds

All lanes:
Western blot - Anti-NP-I antibody [EPR25683-64] (ab289966) at 1/1000 dilution

Lane 1:
Human hypothalamus tissue lysate at 20 µg

Lane 2:
Human heart tissue lysate at 20 µg

Lane 3:
Untreated Human hypothalamus tissue lysate at 20 µg

Lane 4:
Human hypothalamus tissue lysate treated with Protein Deglycosylation MIX II at 20 µg

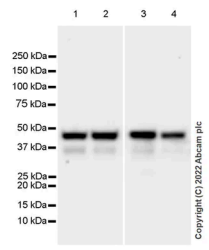
Secondary

Lanes 1 - 2:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Lanes 3 - 4:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1/100000 dilution

Predicted band size: 47 kDa

Observed band size: 47 kDa, 50 kDa



Western blot - Anti-NP-I antibody [EPR25683-64] - BSA and Azide free (ab289990)

NP-I Western blot staining using rabbit Anti-NP-I antibody

This data was developed using ab289966, the same antibody clone in a different buffer formulation.
Blocking and diluting buffer and concentration: 5% NFDM/TBST

The expression profile/ molecular weight observed is consistent with what has been described in the literature (PMID: 29501530)

Exposure time: 15 seconds.
All lanes:
Western blot - Anti-NP-I antibody [EPR25683-64] (ab289966) at 1/1000 dilution

Lane 1:
Mouse hypothalamus tissue lysate at 20 µg

Lane 2:
Mouse brain tissue lysate at 20 µg

Lane 3:
Rat brain tissue lysate at 20 µg

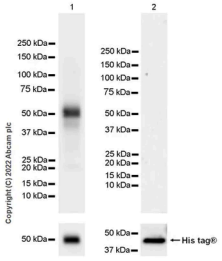
Lane 4:
Rat striatum tissue lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 47 kDa

Observed band size: 38 kDa, 50 kDa



Western blot - Anti-NP-I antibody [EPR25683-64] - BSA and Azide free (ab289990)

This data was developed using ab289966, the same antibody clone in a different buffer formulation.
Blocking and diluting buffer and concentration: 5% NFDM/TBST

Exposure times: Lane 1: 1 seconds; Lane 2: 180 seconds

All lanes:
Western blot - Anti-NP-I antibody [EPR25683-64] (ab289966) at 1/1000 dilution

Lane 1:
His-tagged human NPTX1 recombinant protein, 10 ng

Lane 2:
His-tagged human NPTX2 recombinant protein, 10 ng

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1/100000 dilution

Predicted band size: 47 kDa

Observed band size: 50 kDa

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