abcam

ab273584

Anti-NRP2 antibody [EPR23808-72]

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	EPR23808-72
Purification technique	Affinity purification Protein A
Concentration	0.478 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	1/500
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information NRP2

Function	High affinity receptor for semaphorins 3C, 3F, VEGF-165 and VEGF-145 isoforms of VEGF, and the PLGF-2 isoform of PGF. (Microbial infection) Acts as a receptor for human cytomegalovirus pentamer-dependent entry in epithelial and endothelial cells.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C

Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

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	NRP2 also known as Neuropilin-2 is a receptor protein involved in developmental processes including axon guidance and angiogenesis. The molecular mass of NRP2 is approximately 120 kDa. It is expressed in various tissues such as the nervous system and the vascular system but its expression can also be found in certain immune cells. NRP2 plays an important role in cellular signaling by binding to semaphorins and vascular endothelial growth factors (VEGF).
Biological function summary	NRP2 influences several processes including axonal guidance and the formation of blood vessels. It acts as a co-receptor by forming complexes with other proteins to mediate cellular responses. This role in signaling helps guide neuron growth and regulates vascular development. The NRP2-associated complexes often modulate responses to external signals contributing to the precise control of network formation in tissues.
Pathways	NRP2 plays a significant role in the VEGF signaling pathway and the semaphorin signaling pathway. These pathways are essential for cell growth migration and differentiation. NRP2 works closely with VEGF receptors like VEGFR2 to promote angiogenic responses. It also interacts with semaphorin family proteins to guide neuronal development. Together these pathways ensure the proper formation and function of neural and vascular networks.

Associated diseases and disorders	NRP2 is connected to cancer progression and cardiovascular diseases. Altered expression of NRP2 has been observed in various cancer types where it may contribute to tumor growth and metastasis. In these diseases NRP2's interaction with its partners such as VEGFR2 becomes dysregulated affecting normal cellular processes. Cardiovascular conditions can also arise from issues in NRP2-related signaling where the normal function of blood vessel formation is compromised.

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

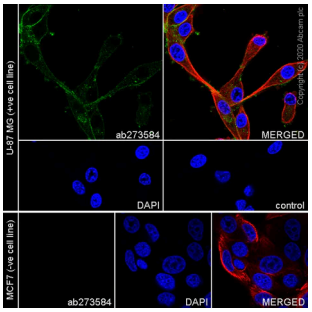
We do not recommend this combination. It is not covered by our product promise.

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.

4 product images

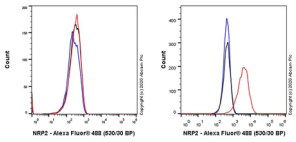


Immunocytochemistry/ Immunofluorescence - Anti-NRP2 antibody [EPR23808-72] (ab273584)

NRP2 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-NRP2 antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized U-87 MG cells labelling NRP2 with ab273584 at 1/100 dilution, followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (Green). Confocal image showing cytoplasmic and membranous staining in U-87 MG cell line. **Negative control:** MCF7 (PMID:18818766). ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/202 dilution (Red). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.



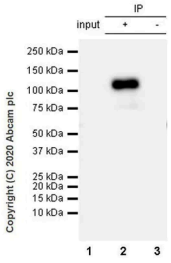
Flow Cytometry - Anti-NRP2 antibody [EPR23808-72] (ab273584)

NRP2 Flow Cytometry staining using rabbit Anti-NRP2 antibody

Flow cytometric analysis of MCF7 (Human breast adenocarcinoma epithelial cell, Left) / U-87 MG (Human glioblastoma-astrocytoma epithelial cell, Right) cells labelling NRP2 with ab273584 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).
Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody.

Negative control: MCF7.

Gated on viable cells.



Immunoprecipitation - Anti-NRP2 antibody [EPR23808-72] (ab273584)

NRP2 was immunoprecipitated from 0.35 mg U-87 MG (human glioblastoma-astrocytoma epithelial cell), whole cell lysate with ab273584 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab273584 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366) was used at 1/5000 dilution.
Lane 1: U-87 MG (human glioblastoma-astrocytoma epithelial cell), whole cell lysate 10 ug

Lane 2: ab273584 IP in U-87 MG whole cell lysate

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab273584 in U-87 MG whole cell lysate

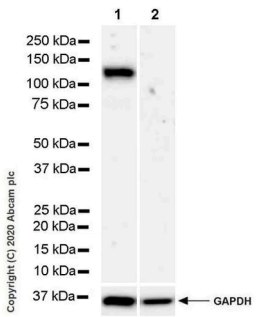
Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 10 seconds

All lanes:
Immunoprecipitation - Anti-NRP2 antibody [EPR23808-72] (ab273584)

Predicted band size: 105 kDa

Observed band size: 130 kDa



Western blot - Anti-NRP2 antibody [EPR23808-72] (ab273584)

NRP2 Western blot staining using rabbit Anti-NRP2 antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.
The expression profile observed is consistent with what has been described in the literature (PMID:18394556, 26156437).

Negative control: MCF 7 (PMID:17912247).

Exposure time: 3 minutes.

All lanes:

Western blot - Anti-NRP2 antibody [EPR23808-72] (ab273584) at 1/1000 dilution

Lane 1:
U-87 MG (human glioblastoma-astrocytoma epithelial cell), whole cell lysate at 40 µg

Lane 2:
MCF7 (human breast adenocarcinoma epithelial cell), whole cell lysate at 40 µg

Secondary

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

Predicted band size: 105 kDa

Observed band size: 130 kDa

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