abcam

ab171942

Anti-NADSYN1 antibody [EPR10611]

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	EPR10611
Purification technique	Affinity purification Protein A
Concentration	0.102 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/50 - 1/100
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IP

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000 - 1/5000
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/50 - 1/100
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/100 - 1/500
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Not recommended

Species	Mouse
Dilution info	-
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Species	Rat
Dilution info	-
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Target data

See full target information NADSYN1

Function	Catalyzes the final step of the nicotinamide adenine dinucleotide (NAD) de novo synthesis pathway, the ATP-dependent amidation of deamido-NAD using L-glutamine as a nitrogen source.

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	NADSYN1 also known as NAD synthetase 1 catalyzes the formation of nicotinamide adenine dinucleotide (NAD) from nicotinic acid adenine dinucleotide (NaAD) and ammonium. The protein plays a critical role in NAD biosynthesis. NADSYN1 has a molecular mass of approximately 66 kDa and it is mostly expressed in the liver kidney and brain. These sites of expression highlight its importance in various tissue types where energy metabolism and cell signaling are important.
Biological function summary	NADSYN1 facilitates the production of NAD an important molecule in several metabolic processes. NAD is a coenzyme that is involved in redox reactions transferring electrons from one reaction to another. NADSYN1 functions as a monomer though it participates in larger biochemical pathways rather than forming a complex itself. Its activity ensures the availability of NAD which is necessary for efficient energy production and cellular functions.
Pathways	Its activity impacts the central NAD biosynthesis pathway. Nicotinamide adenine dinucleotide is essential in glycolysis and the citric acid cycle which are important for energy production in cells. NADSYN1 activity influences these pathways and it maintains cellular energy homeostasis. Alongside its involvement in NAD biosynthesis it has indirect relations with proteins like NAMPT in the salvage

	pathway of NAD synthesis as both serve the function of replenishing cellular NAD levels.
Associated diseases and disorders	Abnormalities in NADSYN1 function can lead to metabolic disorders including congenital NAD deficiency disorders. Such disruptions can impact energy metabolism and lead to neurological and developmental issues. The dysfunction of NADSYN1 linked with oxidative stress disorders relates to its role in maintaining NAD levels which manage cellular redox states. The protein is essential in preventing energy deficits and minimizing the risk of disorders related to impaired NAD metabolism.

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

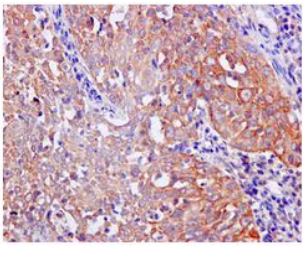
We do not recommend this combination. It is not covered by our product promise.

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.

5 product images

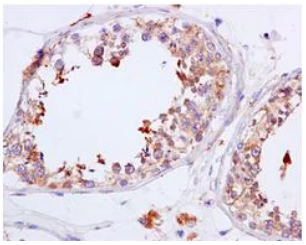


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NADSYN1 antibody [EPR10611] (ab171942)

NADSYN1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-NADSYN1 antibody

Immunohistochemical analysis of paraffin-embedded Human cervical carcinoma tissue labeling NADSYN1 with ab171942 at 1/50 dilution.

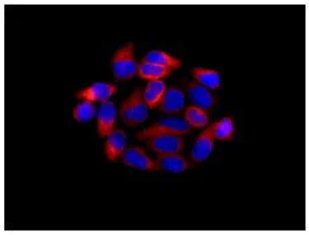
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NADSYN1 antibody [EPR10611] (ab171942)

NADSYN1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-NADSYN1 antibody

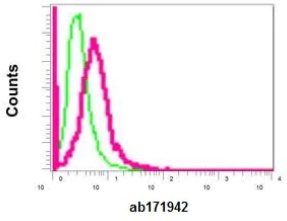
Immunohistochemical analysis of paraffin-embedded Human testis tissue labeling NADSYN1 with ab171942 at 1/50 dilution.
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-NADSYN1 antibody [EPR10611] (ab171942)

NADSYN1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-NADSYN1 antibody

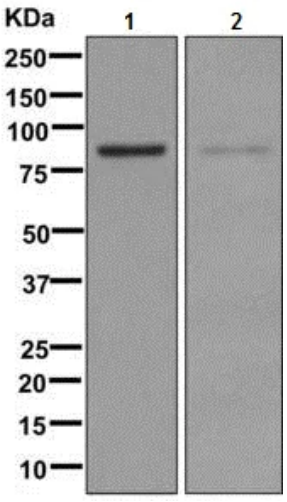
Immunofluorescent analysis of HeLa cells labeling NADSYN1 with ab171942 at 1/50 dilution.



Flow Cytometry (Intracellular) - Anti-NADSYN1 antibody [EPR10611] (ab171942)

NADSYN1 Flow Cytometry (Intracellular) staining using rabbit Anti-NADSYN1 antibody

Intracellular flow cytometric analysis ofpermeabilized HeLa cells labeling NADSYN1 with ab171942at 1/100 dilution (red)ocompared with a Rabbit IgG (negative) (green).



Western blot - Anti-NADSYN1 antibody [EPR10611] (ab171942)

NADSYN1 Western blot staining using rabbit Anti-NADSYN1 antibody

All lanes:
Western blot - Anti-NADSYN1 antibody [EPR10611] (ab171942) at 1/1000 dilution

Lane 1:
HeLa cell lysate at 10 µg

Lane 2:
293T cell lysate at 10 µg

Predicted band size: 79 kDa

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