abcam

ab196649

Anti-NR0B1 / Dax1 antibody [EP13786] - N-terminal

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	EP13786
Purification technique	Affinity purification Protein A
Concentration	1.295 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

Not recommended

Species	Mouse
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/300
Notes	-

Not recommended

Species	Mouse
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/1000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Not recommended

Species	Mouse
Dilution info	-
Notes	-

Target data

See full target information NR0B1

Function	Nuclear receptor that lacks a DNA-binding domain and acts as a corepressor that inhibits the transcriptional activity of other nuclear receptors through heterodimeric interactions (PubMed:12482977, PubMed:32433991). Component of a cascade required for the development of the hypothalamic-pituitary-adrenal-gonadal axis (PubMed:7990953, PubMed:8675564). May also have a role in the development of the embryo and in the maintenance of embryonic stem cell pluripotency (By similarity).

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	NR0B1 also known as Dax1 is a nuclear receptor protein that acts as a transcriptional regulator. It has an approximate mass of 51 kDa and plays an important role in modulating gene expression. This protein is highly expressed in tissues such as the adrenal gland hypothalamus testis and ovary where it exerts its regulatory functions. Although NR0B1 lacks a classical DNA-binding domain it interacts with other proteins to conduct its mechanical functions.
Biological function summary	NR0B1 interacts with other nuclear receptors and transcription factors to regulate steroidogenesis and reproductive development. It plays a critical role in maintaining the balance of transcriptional activity within these systems. NR0B1 functions as a corepressor and participates in protein complexes modulating the activity of specific gene targets. Its biological activities ensure proper development and differentiation of sex-specific organs.
Pathways	NR0B1 is actively involved in the steroid hormone biosynthesis and Wnt signaling pathways. In these pathways NR0B1 influences various downstream processes by interacting with proteins such as SF1 and Wnt components. NR0B1 helps coordinate the activities of other transcriptional regulators effectively integrating signals within the pathway to control cellular outcomes.
Associated diseases and disorders	NR0B1 mutations or dysfunctions can cause conditions such as congenital adrenal hypoplasia and hypogonadotropic hypogonadism. Altered NR0B1 activity interferes with normal adrenal gland and reproductive system development. Its interaction with proteins like SF1 further connects it to pathologies in these systems. Understanding NR0B1's role in these diseases can help develop targeted therapies to address the underlying genetic or functional disruptions.

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.

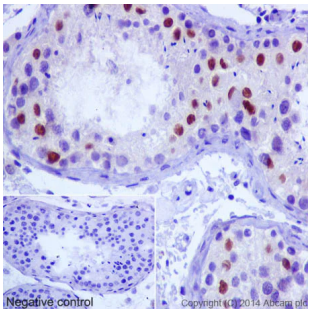
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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6 product images

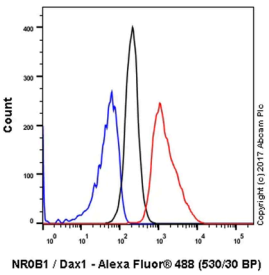


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NR0B1 / Dax1 antibody [EP13786] - N-terminal (ab196649)

NR0B1 / Dax1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-NR0B1 / Dax1 antibody

Immunohistochemical analysis of paraffin-embedded Human testis tissue labeling NR0B1 / Dax1 with ab196649 at 1/1000 dilution followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution and counter-stained with Hematoxylin. (inset: negative control).
Note: Nuclear staining on human testis tissue was observed.

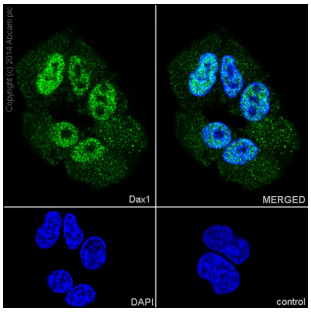
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-NR0B1 / Dax1 antibody [EP13786] - N-terminal (ab196649)

NR0B1 / Dax1 Flow Cytometry (Intracellular) staining using rabbit Anti-NR0B1 / Dax1 antibody

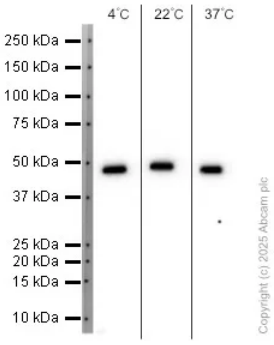
Intracellular Flow Cytometry analysis of A431 (human epidermoid carcinoma) cells labeling NR0B1 / Dax1 with purified ab196649 at 1/150 dilution (10ug/ml) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. A Goat anti rabbit IgG (Alexa Fluorr® 488) (ab150077) (1/2000 dilution) was used as the secondary antibody. Rabbit monoclonal IgG (Black) (ab172730) was used as the isotype control, Cell without incubation with primary antibody and secondary antibody (Blue) were used as the unlabeled control.



Immunocytochemistry/ Immunofluorescence - Anti-NR0B1 / Dax1 antibody [EP13786] - N-terminal (ab196649)

NR0B1 / Dax1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-NR0B1 / Dax1 antibody

Immunofluorescent analysis of SH-SY5Y cells (4% Paraformaldehyde-fixed 0.1% tritonX-100 permeabilized) labeling NR0B1 / Dax1 with ab196649 at 1/300 dilution followed by Goat anti rabbit IgG (AlexaFluor® 488) (ab150077) secondary at 1/400 dilution and counter-stained with DAPI (blue).
Note: Nuclear and cytoplasm staining on SH-SY5Y cell line was observed.



Western blot - Anti-NR0B1 / Dax1 antibody [EP13786] - N-terminal (ab196649)

NR0B1 / Dax1 Western blot staining of A673 whole cell lysate using rabbit Anti-NR0B1 / Dax1 antibody

This blot was produced using 4-20% SDS-PAGE containing 15 µg of A673 whole cell lysate per lane at 150V for 1hr before being transferred onto a 0.45 µm PVDF membrane at 75V for 1hr. The membrane was then blocked for 1hr using 5% NFDM/TBST, then incubated with ab196649 (1/2000) at room temperature for 1hr. After being washed three times in TBST, the membrane was incubated with Peroxidase conjugated goat anti-rabbit IgG (H+L) (ab97051) at 1/20,000 dilution for 1hr at room temperature. The membrane was washed three times again. Then the signal was developed using the ECL technique.

ab196649 was stored at a range of temperatures (+4°C, +22°C, +37°C) for 1 week before being tested in WB. The image shows the band intensity remains relatively constant across all storage temperatures, demonstrating that antibody activity is not affected under these conditions. This data was generated as part of a structured antibody stability study supporting Abcam’ s transition from cold⊠chain to ambient shipping.

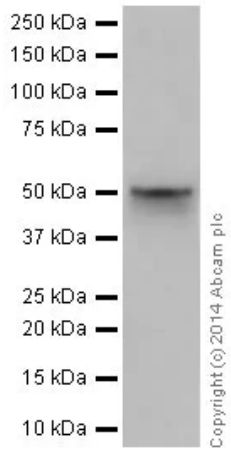
All lanes:
Western blot - Anti-NR0B1 / Dax1 antibody [EP13786] - N-terminal (ab196649) at 1/2000 dilution

All lanes:
A673 whole cell lysate at 15 µg with NDFM/TBST

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Exposure time: 7s



Western blot - Anti-NR0B1 / Dax1 antibody [EP13786] - N-terminal (ab196649)

NR0B1 / Dax1 Western blot staining of A431 cell lysate using rabbit Anti-NR0B1 / Dax1 antibody

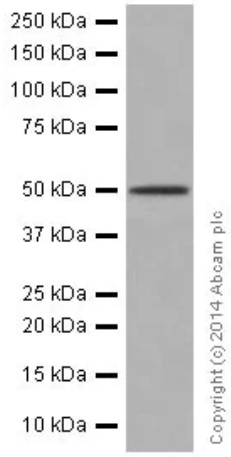
All lanes:
Western blot - Anti-NR0B1 / Dax1 antibody [EP13786] - N-terminal (ab196649) at 1/1000 dilution

All lanes:
A431 cell lysate at 20 µg

Secondary

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

Predicted band size: 52 kDa



Western blot - Anti-NR0B1 / Dax1 antibody [EP13786] - N-terminal (ab196649)

NR0B1 / Dax1 Western blot staining of Human testis lysate using rabbit Anti-NR0B1 / Dax1 antibody

All lanes:
Western blot - Anti-NR0B1 / Dax1 antibody [EP13786] - N-terminal (ab196649) at 1/1000 dilution

All lanes:
Human testis lysate at 10 µg

Secondary

All lanes:
Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/1000 dilution

Predicted band size: 52 kDa

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