abcam

Product datasheet

Anti-NR0B1 / Dax1 antibody [EP13786] - N-terminal ab196649

Recombinant RabMAb

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Overview

Product name	Anti-NR0B1 / Dax1 antibody [EP13786] - N-terminal
Description	Rabbit monoclonal [EP13786] to NR0B1 / Dax1 - N-terminal
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), ICC/IF, IHC-P, WB
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	A431 and Human testis lysates; Human testis tissue; SH-SY5Y cells.
General notes	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 production For more information see here. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 40% Glycerol (glycerin, glycerine), 59% PBS, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EP13786
Isotype	IgG

Applications

The Abpromise guarantee Our Abpromise guarantee covers the use of ab196649 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		Use at an assay dependent concentration.
ICC/IF	★☆☆☆☆ (1)	1/300.
IHC-P		1/1000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
WB		1/1000. Detects a band of approximately 52 kDa (predicted molecular weight: 52 kDa).

Target

Function

Orphan nuclear receptor. Component of a cascade required for the development of the hypothalamic-pituitary-adrenal-gonadal axis. Acts as a coregulatory protein that inhibits the transcriptional activity of other nuclear receptors through heterodimeric interactions. May also have a role in the development of the embryo and in the maintenance of embryonic stem cell pluripotency.

Involvement in disease

Defects in NR0B1 are the cause of X-linked adrenal hypoplasia congenital (XL-AHC) [MIM:300200]; also known as X-linked Addison disease (AHX). XL-AHC is a developmental disorder of the adrenal gland that results in profound hormonal deficiencies and is lethal if untreated. It is characterized by the absence of the permanent zone of the adrenal cortex and by a structural disorganization of the glands. Hypogonadotropic hypogonadism (HHG) is frequently associated with this disorder. HHG is a condition resulting from or characterized by abnormally decreased gonadal function, with retardation of growth and sexual development.
Defects in NR0B1 are the cause of 46,XY sex reversal type 2 (SRXY2) [MIM:300018]. It is a condition characterized by male-to-female sex reversal in the presence of a normal 46,XY karyotype. Note=XY individuals with a duplication of part of the short arm of the X chromosome and an intact SRY gene develop as females. The single X chromosome in these individuals does not undergo X-chromosome inactivation; therefore, these individuals presumably carry 2 active copies of genes, including the NR0B1 gene, in the duplicated region. Individuals with deletion of this region develop as males. Genes within the dosage-sensitive sex reversal region are, therefore, not essential for testis development, but, when present in a double dose, interfere with testis formation.

Sequence similarities

Belongs to the nuclear hormone receptor family. NR0 subfamily.

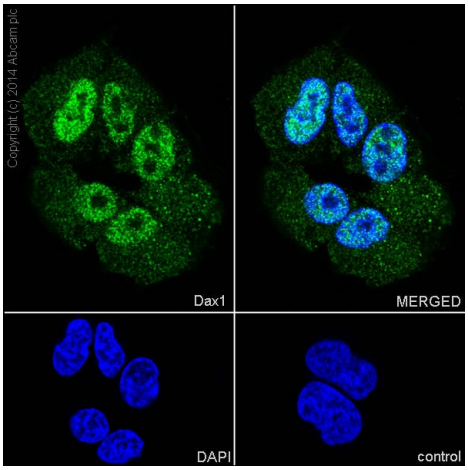
Domain

Homodimerization involved an interaction between amino and carboxy termini involving LXXLL motifs and steroid binding domain (AF-2 motif). Heterodimerizes with NR5A1 and NROB2 through its N-terminal LXXLL motifs.

Cellular localization

Nucleus. Cytoplasm. Shuttles between the cytoplasm and nucleus. Homodimers exits in the cytoplasm and in the nucleus.

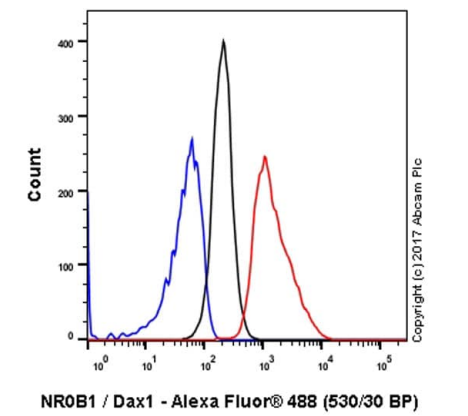
Images



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

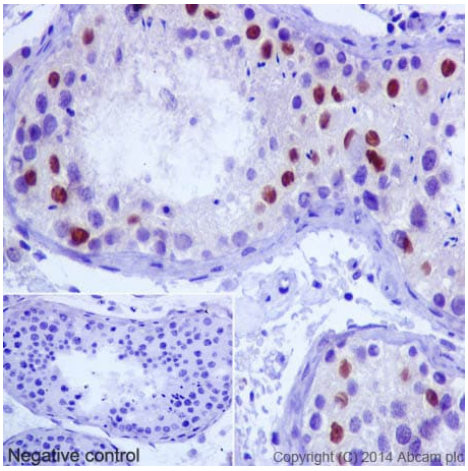
Immunofluorescent analysis of SH-SY5Y cells (4% Paraformaldehyde-fixed, 0.1% tritonX-100 permeabilized) labeling NR0B1 / Dax1 with ab196649 at 1/300 dilution followed by Goat anti rabbit IgG (AlexaFluor® 488) (ab150077) secondary at 1/400 dilution and counter-stained with DAPI (blue).

Note: Nuclear and cytoplasm staining on SH-SY5Y cell line was observed.



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

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.

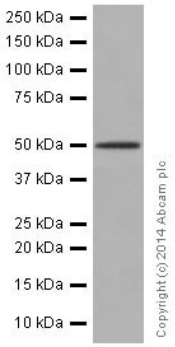


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NR0B1 / Dax1 antibody [EP13786] - N-terminal (ab196649)

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.



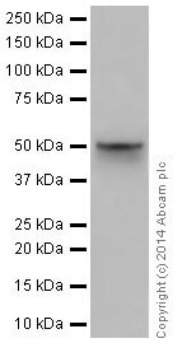
Western blot - Anti-NR0B1 / Dax1 antibody [EP13786] - N-terminal (ab196649)

Anti-NR0B1 / Dax1 antibody [EP13786] - N-terminal (ab196649) at 1/1000 dilution + Human testis lysate at 10 µg

Secondary

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

Predicted band size: 52 kDa



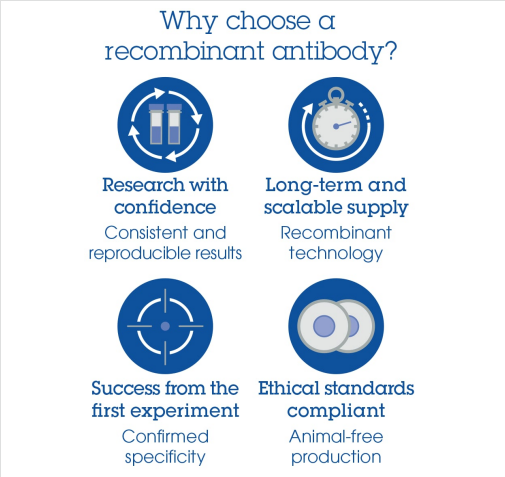
Western blot - Anti-NR0B1 / Dax1 antibody [EP13786] - N-terminal (ab196649)

Anti-NR0B1 / Dax1 antibody [EP13786] - N-terminal (ab196649) at 1/1000 dilution + A431 cell lysate at 20 µg

Secondary

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

Predicted band size: 52 kDa



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

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