abcam

Product datasheet

Anti-NeuroD1 antibody [EPR17084] ab205300



重组 RabMAb

5 References 10 图像

概述

产品名称 Anti-NeuroD1抗体[EPR17084]

描述 兔单克隆抗体[EPR17084] to NeuroD1

宿主 Rabbit

适用于: WB, ICC/IF, IHC-Fr 经测试应用 种属反应性 与反应: Mouse, Human

免疫原 Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.

阳性对照 WB: Human cerebellum lysate; Y79 whole cell lysate. ICC/IF: SH-SY5Y, Y79 and mouse primary

neural/glia cells. IHC-Fr: Frozen mouse brain tissue sections and mouse hippocampus.

常规说明 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**.

性能

形式 Liquid

存放说明 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.

存储溶液 pH: 7.20

Preservative: 0.01% Sodium azide

Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA

纯度 Protein A purified

克隆 单克隆

克隆编号 EPR17084

同种型 lgG

The Abpromise guarantee

Abpromise™承诺保证使用ab205300于以下的经测试应用

"应用说明"部分下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
WB		1/1000. Detects a band of approximately 47 kDa (predicted molecular weight: 40 kDa).
ICC/IF		1/100 - 1/250.
IHC-Fr		Use a concentration of 10 µg/ml.

靶标

功能 Differentiation factor required for dendrite morphogenesis and maintenance in the cerebellar

cortex. Transcriptional activator. Binds to the insulin gene E-box.

疾病相关 Defects in NEUROD1 are the cause of maturity-onset diabetes of the young type 6 (MODY6)

[MIM:606394]. MODY is a form of diabetes that is characterized by an autosomal dominant mode of inheritance, onset in childhood or early adulthood (usually before 25 years of age), a primary defect in insulin secretion and frequent insulin-independence at the beginning of the disease.

序列相似性 Contains 1 basic helix-loop-helix (bHLH) domain.

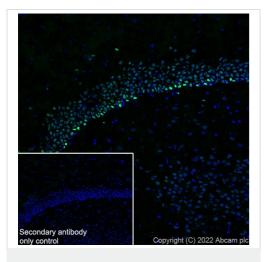
翻译后修饰 Phosphorylated. In islet cells, phosphorylated on Ser-274 upon glucose stimulation; which may be

required for nuclear localization. In activated neurons, phosphorylated on Ser-335; which

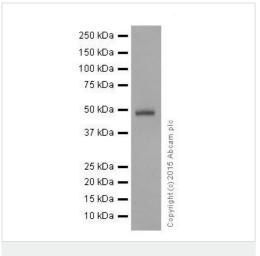
promotes dendritic growth.

细胞定位 Cytoplasm. Nucleus.

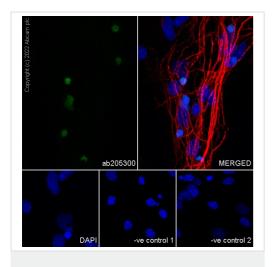
图片



Immunohistochemistry (Frozen sections) - Anti-NeuroD1 antibody [EPR17084] (ab205300) Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized fresh Mouse hippocampus tissue labelling NeuroD1 with ab205300 at 1/50 dilution followed by **ab150081** Goat Anti-Rabbit IgG H&L (Alexa Fluor[®] 488) preadsorbed secondary at 1/1000 dilution. Positive staining on mouse hippocampus tissue is observed. The nuclear counterstain was DAPI (Blue).



Western blot - Anti-NeuroD1 antibody [EPR17084] (ab205300)



Immunocytochemistry/ Immunofluorescence - Anti-NeuroD1 antibody [EPR17084] (ab205300)

Anti-NeuroD1 antibody [EPR17084] (ab205300) at 1/5000 dilution + Y79 (Human retinoblastoma cell line) whole cell lysate at 10 µg

Secondary

Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/1000 dilution

Predicted band size: 40 kDa **Observed band size:** 47 kDa

Exposure time: 3 minutes

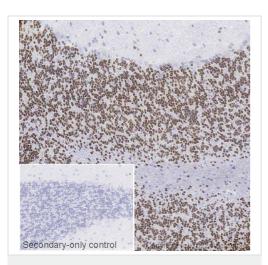
Blocking/Dilution buffer: 5% NFDM/TBST.

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized mouse primary neural/glia cells labelling NeuroD1 with primary antibody anti-NeuroD1 (ab205300) at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed (ab150081) secondary antibody at 1/1000 dilution. Confocal image showing nuclear staining in part of mouse primary neuron. Confocal scanning Z step was set as 0.3 µm followed by image processing with maximum Z projection. Anti-MAP2 mouse monoclonal antibody (ab11267) was used to counterstain at 1/500 dilution, followed by Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) (ab150120) as a secondary counterstain antibody at 1/1000 dilution. The nuclear counter stain is DAPI (blue).

The negative controls are as follows:-

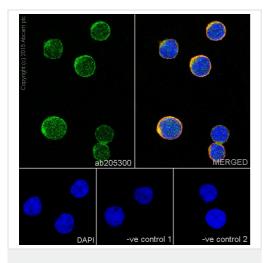
Negative control 1: ab205300 at 1/100 dilution followed by **ab150120** Goat Anti-Mouse IgG H&L (Alexa Fluor[®] 594) at 1/1000 dilution.

Negative control 2: <u>ab11267</u> Anti-MAP2 mouse monoclonal antibody at 1/500 dilution followed by <u>ab150081</u> Goat Anti-Rabbit lgG H&L (Alexa Fluor[®] 488) preadsorbed at 1/1000 dilution.



Immunohistochemistry (Frozen sections) - Anti-NeuroD1 antibody [EPR17084] (ab205300)

IHC image of NeuroD1 staining in a section of frozen normal mouse brain performed on a Leica Biosystems BOND® RX instrument. The section was fixed in 10% paraformaldehyde (10 min) prior to staining. The section was incubated with ab205300, 10 ug/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. The inset secondary-only control image is taken from an identical assay without primary antibody. For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



Immunocytochemistry/ Immunofluorescence - Anti-NeuroD1 antibody [EPR17084] (ab205300)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized Y79 (Human retinoblastoma cell line) cells labeling NeuroD1 with ab205300 at 1/250 dilution, followed by Goat anti-rabbit lgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green).

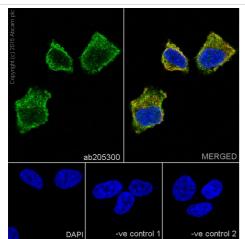
Confocal image showing cytoplasmic and nuclear staining on Y79 cell line.

The nuclear counterstain is DAPI (blue).

Tubulin is detected with <u>ab7291</u> (anti-Tubulin mouse mAb) at 1/1000 dilution and <u>ab150120</u> (AlexaFluor®594 Goat anti-Mouse secondary) at 1/1000 dilution (red).

The negative controls are as follows:-

-ve control 1: ab205300 at 1/250 dilution followed by <u>ab150120</u> (AlexaFluor®594 Goat anti-Mouse secondary) at 1/1000 dilution. -ve control 2: <u>ab7291</u> (anti-Tubulin mouse mAb) at 1/1000 dilution followed by <u>ab150077</u> (Alexa Fluor®488 Goat Anti-Rabbit lgG H&L) at 1/1000 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-NeuroD1 antibody [EPR17084] (ab205300)

The negative controls are as follows:-

secondary) at 1/1000 dilution (red).

The nuclear counterstain is DAPI (blue).

SY5Y cell line.

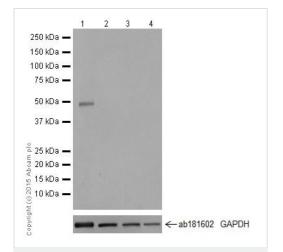
-ve control 1: ab205300 at 1/250 dilution followed by ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/1000 dilution. -ve control 2: ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution followed by ab150077 (Alexa Fluor®488 Goat Anti-Rabbit IgG H&L) at 1/1000 dilution.

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized SH-SY5Y (Human neuroblastoma from bone marrow cells) cells labeling NeuroD1 with ab205300 at 1/250

Confocal image showing cytoplasmic and nuclear staining on SH-

Tubulin is detected with ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution and ab150120 (AlexaFluor®594 Goat anti-Mouse

dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green).



Western blot - Anti-NeuroD1 antibody [EPR17084] (ab205300)

All lanes: Anti-NeuroD1 antibody [EPR17084] (ab205300) at 1/1000 dilution

Lane 1: Human cerebellum lysate

Lane 2: Human fetal heart lysate

Lane 3: Human fetal kidney lysate

Lane 4: Human fetal spleen lysate

Lysates/proteins at 10 µg per lane.

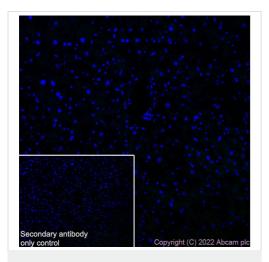
Secondary

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

Predicted band size: 40 kDa Observed band size: 47 kDa

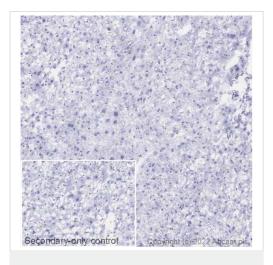
Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.



Immunohistochemistry (Frozen sections) - Anti-NeuroD1 antibody [EPR17084] (ab205300)

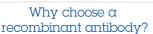
Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized fresh Mouse liver tissue labelling NeuroD1 with ab205300 at 1/50 dilution followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed secondary at 1/1000 dilution. No staining on mouse liver tissue is observed. The nuclear counterstain was DAPI (Blue). Negative control (PMID: 24309898).



Immunohistochemistry (Frozen sections) - Anti-NeuroD1 antibody [EPR17084] (ab205300)

Negative tissue image: IHC image of NeuroD1 staining in a section of frozen normal mouse liver performed on a Leica Biosystems BOND® RX instrument. The section was fixed in 10% paraformaldehyde (10 min) prior to staining. The section was incubated with ab205300, 10 ug/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. The inset secondary-only control image is taken from an identical assay without primary antibody.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.





Research with confidence Consistent and reproducible results



scalable supply Recombinant technology





first experiment Confirmed specificity

Success from the Ethical standards compliant Animal-free production

Anti-NeuroD1 antibody [EPR17084] (ab205300)

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