

Anti-NeuroD1 antibody [EPR20766] - BSA and Azide free ab226489

Recombinant RabMAb

[5 Images](#)

Overview

Product name	Anti-NeuroD1 antibody [EPR20766] - BSA and Azide free
Description	Rabbit monoclonal [EPR20766] to NeuroD1 - BSA and Azide free
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P, IP, Flow Cyt (Intra)
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	IHC-P: Mouse hippocampus tissue.
General notes	<p>ab226489 is the carrier-free version of ab213725.</p> <p>The Human species recommendation is based on the WB results. We do not guarantee IHC-P for Human.</p> <p>Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.</p> <p>This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.</p> <p>Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.</p> <p>This product is compatible with the Maxpar[®] Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar[®] is a trademark of Fluidigm Canada Inc.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none">- High batch-to-batch consistency and reproducibility- Improved sensitivity and specificity- Long-term security of supply- Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit</p>

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. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR20766
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab226489 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
WB		Use at an assay dependent concentration. Predicted molecular weight: 40 kDa.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. The Human species recommendation is based on the WB results. We do not guarantee IHC-P for Human.
IP		Use at an assay dependent concentration.
Flow Cyt (Intra)		Use at an assay dependent concentration.

Target

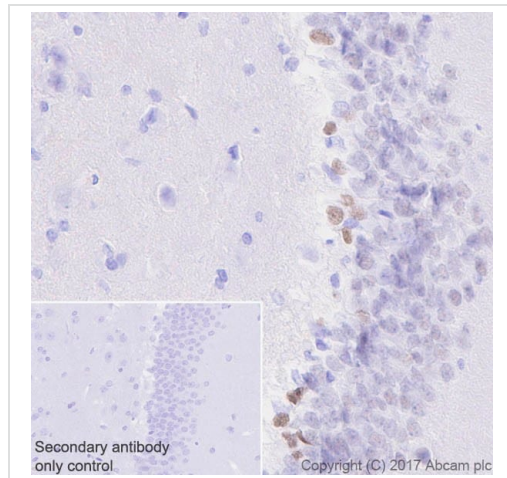
Function	Differentiation factor required for dendrite morphogenesis and maintenance in the cerebellar cortex. Transcriptional activator. Binds to the insulin gene E-box.
Involvement in disease	Defects in NEUROD1 are the cause of maturity-onset diabetes of the young type 6 (MODY6) [MIM:606394]. MODY is 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.
Sequence similarities	Contains 1 basic helix-loop-helix (bHLH) domain.
Post-translational modifications	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.

Cellular localization

Cytoplasm. Nucleus.

Images



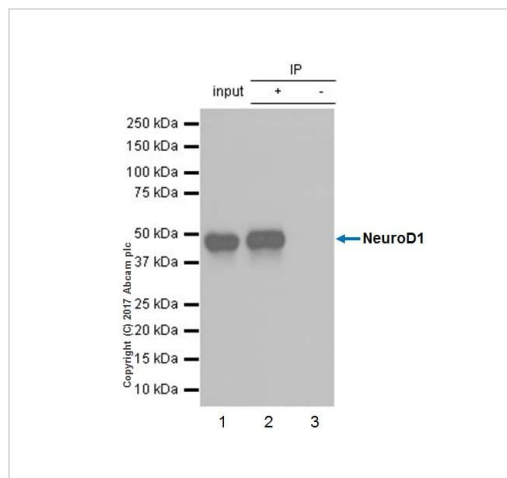
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NeuroD1 antibody [EPR20766] - BSA and Azide free (ab226489)

Immunohistochemical analysis of paraffin-embedded rat hippocampus tissue labeling NeuroD1 with **ab213725** at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Nuclear staining on subgranular zone of the rat hippocampus (PMID: 19701197, PMID: 25825708) is observed. Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab213725**).

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



Immunoprecipitation - Anti-NeuroD1 antibody [EPR20766] - BSA and Azide free (ab226489)

NeuroD1 was immunoprecipitated from 0.35 mg of Y79 (human retinoblastoma cell line) whole cell lysate with **ab213725** at 1/30 dilution. Western blot was performed from the immunoprecipitate using **ab213725** at 1/500 dilution. VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/1000 dilution.

Lane 1: Y79 whole cell lysate 10 µg (Input).

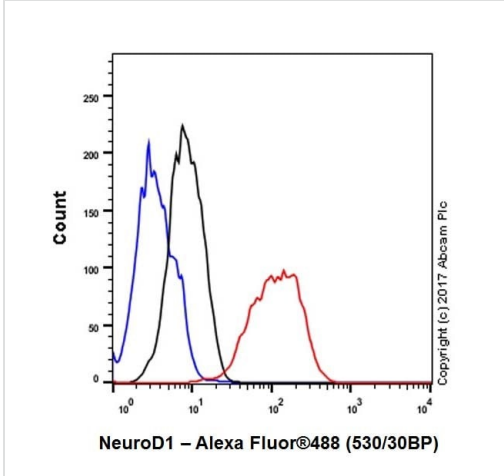
Lane 2: **ab213725** IP in Y79 whole cell lysate.

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of **ab213725** in Y79 whole cell lysate.

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

Exposure time: 1 second.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab213725**).

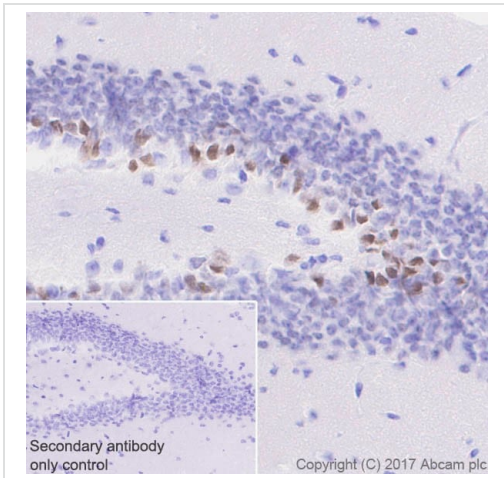


Flow Cytometry (Intracellular) - Anti-NeuroD1 antibody [EPR20766] - BSA and Azide free (ab226489)

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol-permeabilized Y79 (human retinoblastoma cell line) cell line labeling NeuroD1 with **ab213725** at 1/50 (red) compared with a Rabbit IgG, monoclonal [EPR25A] - Isotype control details (**ab172730**) (black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (blue).

Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**), at 1/2000 dilution was used as the secondary antibody.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab213725**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NeuroD1 antibody [EPR20766] - BSA and Azide free (ab226489)

Immunohistochemical analysis of paraffin-embedded mouse hippocampus tissue labeling NeuroD1 with **ab213725** at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Nuclear staining on subgranular zone of the mouse hippocampus dentate gyrus (PMID: 19701197, PMID: 25825708) is observed. Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab213725**).

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

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-NeuroD1 antibody [EPR20766] - BSA and Azide free (ab226489)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors