

Rabbit NEUROD1 Polyclonal Antibody | anti-NEUROD1 antibody

NEUROD1 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326060	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

NEUROD1; Polyclonal Antibody; NEUROD1 Antibody; atonal; basic helix loop helix transcription factor; BETA 2; Beta cell E box transactivator 2; BETA2; BHF 1; BHF1; bHLHa3; class A basic helix loop helix protein 3; Class A basic helix-loop-helix protein 3; MODY 6; MODY6; NDF1_HUMAN; NeuroD; NeuroD1; Neurogenic differentiation 1; Neurogenic differentiation factor 1; neurogenic helix loop helix protein NEUROD; Neuronal differentiation 1; anti-NEUROD1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	NEUROD1 antibody detects endogenous levels of total NEUROD1
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid; Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	356
Applicable Applications for anti-NEUROD1 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human NEUROD1, corresponding to a region within N-Terminal amino acids.
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



WB (Western Blot)

Western blot analysis of extracts from various samples, using NEUROD1 Antibody. Lane 1: Rat spleen lysates Lane 2: Rat brain lysates Lane 3: Rat brain lysates treated with blocking peptide.



IHC (Immunohistochemistry)

AAA326060 at 1/100 staining Mouse brain tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



IF (Immunofluorescence)

AAA326060 staining HeLa cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody, diluted at 1/600, was used as secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-NEUROD1 antibody	Description: NeuroD is a member of the basic helix-loop-helix (bHLH) family of transcription factors. These proteins function by forming heterodimers with E-proteins and binding to the canonical E-box sequence CANNTG (1, 2). Neuronal activity results in CaMKII-mediated phosphorylation of NeuroD at Ser336, which is necessary for formation and growth of dendrites (3, 4). NeuroD is also phosphorylated at Ser274 though the results are context dependent as phosphorylation by Erk stimulates NeuroD activity in pancreatic beta-cells while phosphorylation by GSK-3beta inhibits NeuroD in neurons (3). NeuroD is crucially important in both the pancreas and developing nervous system, and plays a large role in the development of the inner ear and mammalian retina (3). Mice lacking NeuroD become severely diabetic and die shortly after birth due to defects in beta-cell differentiation (2, 3, 5, 6). The lack of NeuroD in the brain results in severe defects in development (5). Human mutations have been linked to a number of types of diabetes including type I diabetes mellitus and maturity-onset diabetes of the young (1, 3). Subunit Structure: Interacts (via helix-loop-helix motif domain) with EP300 (via C-terminus) (By similarity). Heterodimer with TCF3/E47; the heterodimer is inhibited in presence of ID2, but not NR0B2, to E-box element. Efficient DNA-binding requires dimerization with another bHLH protein. Interacts with RREB1. Interacts with EP300; the interaction is inhibited by NR0B2. Interacts with TCF3; the interaction is inhibited by ID2. Interacts with ATOH8 (By similarity). 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. Phosphorylated by MAPK1; phosphorylation regulates heterodimerization and DNA-binding activities. Phosphorylation on Ser-266 and Ser-274 increases transactivation on the insulin promoter in glucose-stimulated insulinoma cells (By similarity).
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NCBI AND UNIPROT INFORMATION

NCBI GI #	121114306
NCBI GeneID	4760
NCBI Accession #	NP_002491.2
NCBI GenBank Nucleotide #	NM_002500.4
UniProt Accession #	Q13562; O00343; Q13340; Q5U095; Q96TH0; Q99455; Q9UEC8; B2R9I8; F1T0E1
Molecular Weight	40kDa
NCBI Official Full Name	neurogenic differentiation factor 1
NCBI Official Synonym Full Names	neuronal differentiation 1
NCBI Official Symbol	NEUROD1
NCBI Official Synonym Symbols	BETA2; BHF-1; MODY6; NEUROD; bHLHa3
NCBI Protein Information	neurogenic differentiation factor 1
UniProt Protein Name	Neurogenic differentiation factor 1
UniProt Gene Name	NEUROD1
UniProt Synonym Gene Names	BHLHA3; NEUROD; NeuroD; NeuroD1; bHLHa3

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/neurod1-antibody-immunocytochemistry-immunofluorescence-immunohistochemistry-western-blot-elisa/326060>