NEUROD1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	NEUROD1, Polyclonal Antibody
Full Product Name	NEUROD1 Antibody, FITC conjugated
Product Gene Name	anti-NEUROD1 antibody
Product Synonym Names	Neurogenic differentiation factor 1; NeuroD; NeuroD1; Class A basic helix-loop-helix protein 3; bHLHa3; NEUROD1; BHLHA3; NEUROD
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Liquid
Purity/Purification	>95%, Protein G purified
Preparation and Storage	Shipped at 4 degree C. Upon delivery aliquot and store at -20 degree C or -80 degree C. Avoid repeated freeze.
Matching Pairs	Unconjugated Antibody: NEUROD1 (MBS7052781) FITC Conjugated Antibody: NEUROD1 (MBS7052783)
Molecular Weight	39,920 Da
OMIM	U50822 Genomic DNA
3D Structure	ModBase 3D Structure for Q13562
Immunogen	Recombinant Human Neurogenic differentiation factor 1 protein (154-356AA)
Conjugation	FITC
Preservative	0.03% Proclin 300
Constituents	50% Glycerol, 0.01M PBS, pH 7.4
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-NEUROD1 antibody	ELISA (EIA)
Related Product Information for anti-NEUROD1 antibody	Acts as a transcriptional activator: mediates transcriptional activation by binding to E box-containing promoter consensus core sequences 5'-CANNTG-3'. Associates with the p300/CBP transcription coactivator complex to stimulate transcription of the secretin gene as well as the gene encoding the cyclin-dependent kinase inhibitor CDKN1A. Contributes to the regulation of several cell differentiation pathways, like those that promote the formation of early retinal ganglion cells, inner ear sensory neurons, granule cells forming either the cerebellum or the dentate gyrus cell layer of the hippocampus, endocrine islet cells of the pancreas and enteroendocrine cells of the small intestine. Together with PAX6 or SIX3, is required for the regulation of amacrine cell fate specification. Also required for dendrite morphogenesis and maintenance in the cerebellar cortex. Associates with chromatin to enhancer regulatory elements in genes encoding key transcriptional regulators of neurogenesis (By similarity).
Other Notes	Small volumes of anti-NEUROD1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

Searchable Terms for NEUROD1 purchase	MBS7052783 is an antibody targeting NEUROD1. Also known as NEUROD1 Antibody, FITC conjugated. Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for NEUROD1. It may not necessarily be applicable to this product.

NCBI GI #	121114306
NCBI GeneID	4760
NCBI Accession #	NP_002491.2
UniProt Primary Accession #	Q13562
UniProt Secondary Accession #	O00343; Q13340; Q5U095; Q96TH0; Q99455; Q9UEC8; B2R9I8; F1T0E1
UniProt Related Accession #	Q13562
GenBank Nucleotide #	NM_002500.4
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
UniProt Protein Name	Neurogenic differentiation factor 1
UniProt Synonym Protein Names	Class A basic helix-loop-helix protein 3; bHLHa3
UniProt Gene Name	NEUROD1
UniProt Synonym Gene Names	BHLHA3; NEUROD; NeuroD; NeuroD1; bHLHa3
NCBI Protein Information	neurogenic differentiation factor 1
NCBI Summary for NEUROD1	This gene encodes a member of the NeuroD family of basic helix-loop-helix (bHLH) transcription factors. The protein forms heterodimers with other bHLH proteins and activates transcription of genes that contain a specific DNA sequence known as the E-box. It regulates expression of the insulin gene, and mutations in this gene result in type II diabetes mellitus. [provided by RefSeq, Jul 2008]

UniProt Comments for NEUROD1	NEUROD1: Acts as a transcriptional activator: mediates transcriptional activation by binding to E box-containing promoter consensus core sequences 5'-CANNTG-3'. Associates with the p300/CBP transcription coactivator complex to stimulates transcription of the secretin gene as well as the gene encoding the cyclin-dependent kinase inhibitor p21Cip1. Contributes to the regulation of several cell differentiation pathways, like those that promote the formation of early retinal ganglion cells, inner ear sensory neurons, granule cells forming either the cerebellum or the dentate gyrus cell layer of the hippocampus, endocrine islet cells of the pancreas and enteroendocrine cells of the small intestine. Together with PAX6 or SIX3, is required for the regulation of amacrine cell fate specification. Also required for dendrite morphogenesis and maintenance in the cerebellar cortex. Associates with chromatin to enhancer regulatory elements in genes encoding key transcriptional regulators of neurogenesis. Interacts (via helix-loop-helix motif domain) with EP300 (via C-terminus). 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. Protein type: DNA-binding; Transcription factor Chromosomal Location of Human Ortholog: 2q31.3 Cellular Component: nucleoplasm; nucleus Molecular Function: chromatin binding; protein binding; protein heterodimerization activity; sequence-specific DNA binding; transcription coactivator activity; transcription factor activity; transcription factor binding Biological Process: cerebellum development; dentate gyrus development; embryonic organ morphogenesis; endocrine pancreas development; glucose homeostasis; inner ear development; insulin secretion; neurogenesis; nitric oxide mediated signal transduction; positive regulation of apoptosis; positive regulation of cell differentiation; positive regulation of neuron differentiation; positive regulation of transcription factor activity; positive regulation of transcription from RNA polymerase II promoter; positive regulation of transcription, DNA-dependent; regulation of insulin secretion; response to glucose stimulus Disease: Diabetes Mellitus, Noninsulin-dependent; Maturity-onset Diabetes Of The Young, Type 6
Research Articles on NEUROD1	**1.** detected c.133A > G (p. Ala45Thr) in children with sensorineural hearing loss
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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Online datasheet: https://www.mybiosource.com/polyclonal-human-antibody/neurod1/7052783