

ARG41816 anti-NeuroD1 antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes NeuroD1
Tested Reactivity	Hu, Ms, Rat
Tested Application	IP, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	NeuroD1
Species	Human
Immunogen	Synthetic peptide of Human NeuroD1.
Conjugation	Un-conjugated
Alternate Names	NEUROD; NeuroD1; NeuroD; BHF-1; Class A basic helix-loop-helix protein 3; MODY6; BETA2; bHLHa3; Neurogenic differentiation factor 1

Application Instructions

Application table	Application	Dilution
	IP	1:50
	WB	1:500 - 1:2000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	Y79	
Observed Size	~ 47 kDa	

Properties

Form	Liquid
Purification	Affinity purified.
Buffer	PBS (pH 7.4), 150 mM NaCl, 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	NEUROD1
Gene Full Name	neuronal differentiation 1
Background	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]
Function	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). [UniProt]
Calculated Mw	40 kDa
PTM	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). [UniProt]
Cellular Localization	Cytoplasm. Nucleus. Note=In pancreatic islet cells, shuttles to the nucleus in response to glucose stimulation (By similarity). Colocalizes with NROB2 in the nucleus. [UniProt]

Images



ARG41816 anti-NeuroD1 antibody WB image

Western blot: Y79 cell lysate stained with ARG41816 anti-NeuroD1 antibody.