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NeuroD Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO2259a

Product Information

Application	WB, E
Primary Accession	Q13562
Reactivity	Human, Mouse
Host	Mouse
Clonality	Monoclonal
Clone Names	6E9G12
Isotype	IgG1
Calculated MW	39920
Description	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.
Immunogen	Purified recombinant fragment of human Neurod (AA: 26-91) expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide

Additional Information

Gene ID	4760
Other Names	Neurogenic differentiation factor 1, NeuroD, NeuroD1, Class A basic helix-loop-helix protein 3, bHLHa3, NEUROD1, BHLHA3, NEUROD
Dilution	WB~~1/500 - 1/2000 E~~1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	NeuroD Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NEUROD1
Synonyms	BHLHA3, NEUROD

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).
Cellular Location	Cytoplasm. Nucleus {ECO:0000255|PROSITE-ProRule:PRU00981, ECO:0000269|PubMed:14752053} Note=In pancreatic islet cells, shuttles to the nucleus in response to glucose stimulation (By similarity). Colocalizes with NR0B2 in the nucleus.

References

1.Cancer Res. 2011 Apr 15;71(8):2938-48. 2.Transplant Proc. 2010 Jul-Aug;42(6):2071-4.

Images

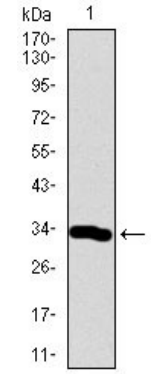


Figure 1: Western blot analysis using Neurod mAb against human Neurod recombinant protein. (Expected MW is 33.2 kDa)

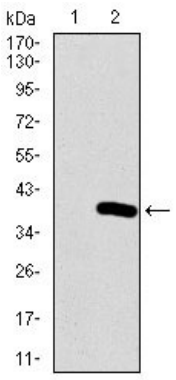
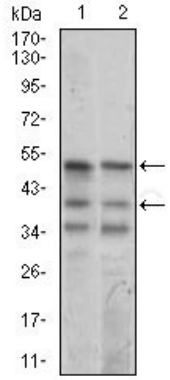


Figure 2: Western blot analysis using Neurod mAb against HEK293 (1) and Neurod (AA: 26-91)-hIgGFc transfected HEK293 (2) cell lysate.

Figure 3: Western blot analysis using Neurod mouse mAb against NIH3T3 (1) and SK-N-SH (2) cell lysate.



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