

For Research Use Only

NEUROD1 Polyclonal antibody

Catalog Number: 12081-1-AP **10 Publications**



Basic Information

Catalog Number: 12081-1-AP	GenBank Accession Number: BC009046	Purification Method: Antigen affinity purification
Size: 150ul , Concentration: 550 µg/ml by Nanodrop and 467 µg/ml by Bradford method using BSA as the standard;	GeneID (NCBI): 4760	Recommended Dilutions: WB 1:200-1:1000 IP 0.5-4.0 ug for IP and 1:200-1:1000 for WB
Source: Rabbit	Full Name: neurogenic differentiation 1	IHC 1:50-1:500 IF 1:50-1:500
Isotype: IgG	Calculated MW: 356 aa, 40 kDa	
Immunogen Catalog Number: AG2713	Observed MW: 50 kDa	

Applications

Tested Applications: IF, IHC, IP, WB, ELISA	Positive Controls:
Cited Applications: IF, IHC, WB	WB : Y79 cells,
Species Specificity: human, mouse, rat	IP : Y79 cells,
Cited Species: human, mouse, rat	IHC : mouse brain tissue, human pancreas cancer tissue
	IF : mouse brain tissue,
Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0	

Background Information

NeuroD is a member of the basic helix-loop-helix (bHLH) family of transcription factors. The basic helix-loop-helix (bHLH) proteins are transcription factors that are required for several aspects of development, including cell type determination, terminal differentiation and sex determination. Members of the myogenic determination family, MyoD, myf5, myogenin and MRF4, all have bHLH domains. These proteins function by forming heterodimers with E-proteins and binding to the canonical E-box sequence CANNTG. Neuro D is expressed transiently in a subset of neurons in the central and peripheral nervous systems at the time of their terminal differentiation into mature neurons. Moreover, ectopic expression of Neuro D in *Xenopus* embryos induces premature differentiation of neuronal precursors and Neuro D can convert presumptive epidermal cells into neurons. The lack of NeuroD in the brain results in severe defects in development. Human mutations have been linked to a number of types of diabetes including type I diabetes mellitus and maturity-onset diabetes of the young. The calculated molecular weight of NEUROD1 is 39 kDa, but the modified NEUROD1 protein is about 45-50 kDa.

Notable Publications

Author	Pubmed ID	Journal	Application
Jianwei Xie	33033581	Comput Struct Biotechnol J	IHC,WB
Kaitlin Ching	32931487	PLoS Biol	IF
Lin Yang	31754329	Int J Biol Sci	WB

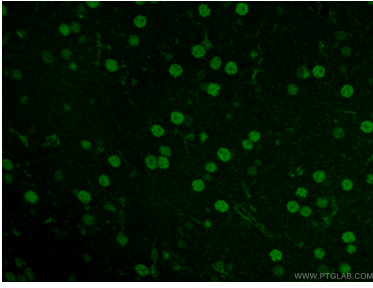
Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

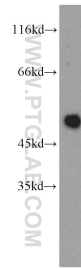
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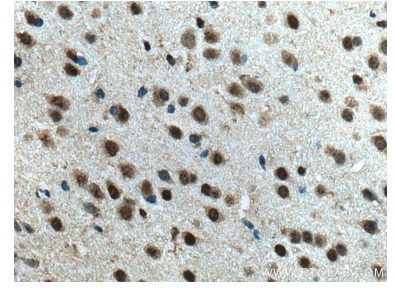
Selected Validation Data



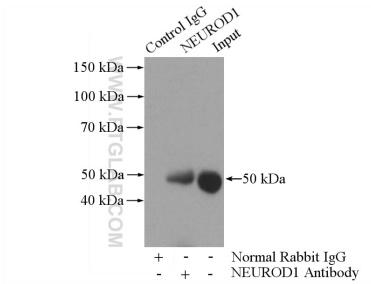
Immunofluorescent analysis of (4% PFA) fixed mouse brain tissue using 12081-1-AP (NEUROD1 antibody) at dilution of 1:50 and Alexa Fluor 488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



Y79 cells were subjected to SDS PAGE followed by western blot with 12081-1-AP (NEUROD1 antibody) at dilution of 1:200 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 12081-1-AP (NEUROD1 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



IP Result of anti-NEUROD1 (IP:12081-1-AP, 3ug; Detection:12081-1-AP 1:200) with Y79 cells lysate 2000ug.