

For Research Use Only

NEUROD1 Monoclonal antibody

Catalog Number: 66691-1-Ig



Basic Information

Catalog Number: 66691-1-Ig	GenBank Accession Number: BC009046	Purification Method: Protein G purification
Size: 150ul , Concentration: 1700 ug/ml by Nanodrop and 1000 ug/ml by Bradford method using BSA as the standard;	GeneID (NCBI): 4760	CloneNo.: 3E10F1
Source: Mouse	UNIPROT ID: Q13562	Recommended Dilutions: WB: 1:5000-1:50000 IHC: 1:500-1:2000 FC (Intra): 0.50 ug per 10 ⁶ cells in a 100 µl suspension
Isotype: IgG1	Full Name: neurogenic differentiation 1	
Immunogen Catalog Number: AG27606	Calculated MW: 356 aa, 40 kDa	
	Observed MW: 40-50 kDa	

Applications

Tested Applications: WB, IHC, FC (Intra), ELISA	Positive Controls:
Species Specificity: human, mouse	WB : Y79 cells, SH-SY5Y cells
Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0	IHC : human pancreas cancer tissue,
	FC (Intra) : SH-SY5Y cells,

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.

Storage

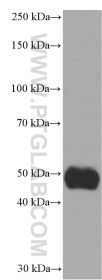
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

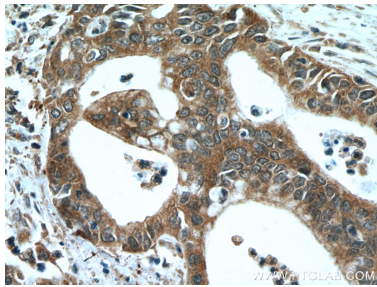
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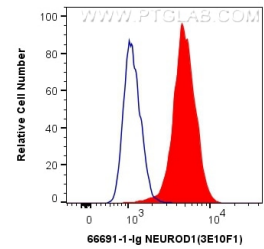
Selected Validation Data



Y79 cells were subjected to SDS PAGE followed by western blot with 66691-1-Ig (NEUROD1 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human pancreas cancer tissue slide using 66691-1-Ig (NEUROD1 antibody) at dilution of 1:1000 (under 40x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



1X10⁶ SH-SY5Y cells were intracellularly stained with 0.5 ug Anti-Human NEUROD1 (66691-1-Ig, Clone:3E10F1) (red) labeled with FlexAble CoraLite® Plus 555 Antibody Labeling Kit for Mouse IgG1 (KFA022), or 0.5 ug Control Antibody. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).