NEUROD1 Conjugated Antibody

Catalog No: #C38203

Package Size: #C38203-AF350 100ul #C38203-AF405 100ul #C38203-AF488 100ul #C38203-AF555 100ul #C38203-AF594 100ul #C38203-AF647 100ul #C38203-AF680 100ul #C38203-AF750 100ul #C38203-Biotin 100ul

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Description

Product Name	NEUROD1 Conjugated Antibody
Host Species	Rabbit
Clonality	Polyclonal
Species Reactivity	Hu Ms Rt
Specificity	The antibody detects endogenous level of total NEUROD1 antibody.
Immunogen Description	Recombinant protein of human NEUROD1.
Conjugates	Biotin AF350 AF405 AF488 AF555 AF594 AF647 AF680 AF750
Other Names	NEUROD1;BETA2;BHF-1;NEUROD;bHLHa3 ;
Accession No.	Swiss-Prot#:Q13562NCBI Gene ID:4760
Uniprot	Q13562
GeneID	4760;
Excitation Emission	AF350: 346nm/442nm AF405: 401nm/421nm AF488: 493nm/519nm AF555: 555nm/565nm AF594: 591nm/614nm AF647: 651nm/667nm AF680: 679nm/702nm AF750: 749nm/775nm
Calculated MW	40
Formulation	0.01M Sodium Phosphate, 0.25M NaCl, pH 7.6, 5mg/ml Bovine Serum Albumin, 0.02% Sodium Azide
Storage	Store at 4°C in dark for 6 months

Application Details

Suggested Dilution:

AF350 conjugated: most applications: 1: 50 - 1: 250

AF405 conjugated: most applications: 1: 50 - 1: 250

AF488 conjugated: most applications: 1: 50 - 1: 250

AF555 conjugated: most applications: 1: 50 - 1: 250

AF594 conjugated: most applications: 1: 50 - 1: 250

AF647 conjugated: most applications: 1: 50 - 1: 250

AF680 conjugated: most applications: 1: 50 - 1: 250

AF750 conjugated: most applications: 1: 50 - 1: 250

Biotin conjugated: working with enzyme-conjugated streptavidin, most applications: 1: 50 - 1: 1,000

Background

NeuroD is a member of the basic helix-loop-helix (bHLH) family of transcription factors. These proteins function by forming heterodimers with E-proteins and binding to the canonical E-box sequence CANNTG (1,2). Neuronal activity results in CaMKII-mediated phosphorylation of NeuroD at Ser336, which is necessary for formation and growth of dendrites (3,4). NeuroD is also phosphorylated at Ser274 though the results are context dependent as phosphorylation by Erk stimulates NeuroD activity in pancreatic β-cells while phosphorylation by GSK-3β inhibits NeuroD in neurons (3). NeuroD is crucially important in both the pancreas and developing nervous system, and plays a large role in the development of the inner ear and mammalian retina (3). Mice lacking NeuroD become severely diabetic and die shortly after birth due to defects in β-cell differentiation (2,3,5,6). The lack of NeuroD in the brain results in severe defects in development (5). Human mutations have been linked to a number of types of diabetes including type I diabetes mellitus and maturity-onset diabetes of the young (1,3).

Note: This product is for in vitro research use only