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Product datasheet for RC201987

NEUROD1 (NM_002500) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NEUROD1 (NM_002500) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	NEUROD1
Synonyms:	BETA2; BHF-1; bHLHa3; MODY6; NEUROD; T2D
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC201987 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGACCAAATCGTACAGCGAGAGTGGGCTGATGGGCGAGCCTCAGCCCCAAGGTCCTCCAAGCTGGACAG
ACGAGTGTCTCAGTTCTCAGGACGAGGAGCACGAGGCAGACAAGAAGGAGGACGACCTCGAAGCCATGAA
CGCAGAGGAGGACTCACTGAGGAACGGGGGAGAGGAGGAGGACGAAGATGAGGACCTGGAAGAGGAGGAA
GAAGAGGAAGAGGAGGATGACGATCAAAAGCCCAAGAGACGCGGCCCCAAAAAGAAGAAGATGACTAAGG
CTCGCCTGGAGCGTTTTAAATTGAGACGCATGAAGGCTAACGCCCGGGAGCGGAACCGCATGCACGGACT
GAACGCGGCGCTAGACAACCTGCGCAAGGTGGTGCCTTGCTATTCTAAGACGCAGAAGCTGTCCAAAATC
GAGACTCTGCGCTTGGCCAAGAACTACATCTGGGCTCTGTCGGAGATCCTGCGCTCAGGCAAAAGCCCAG
ACCTGGTCTCCTTCGTTCAGACGCTTTGCAAGGGCTTATCCCAACCCACCACCAACCTGGTTGCGGGCTG
CCTGCAACTCAATCCTCGGACTTTTCTGCCTGAGCAGAACCAGGACATGCCCCCCCACCTGCCGACGGCC
AGCGCTTCCTTCCCTGTACACCCCTACTCCTACCAGTCGCCTGGGCTGCCCAGTCCGCCTTACGGTACCA
TGGACAGCTCCCATGTCTTCCACGTTAAGCCTCCGCCGCACGCCTACAGCGCAGCGCTGGAGCCCTTCTT
TGAAAGCCCTCTGACTGATTGCACCAGCCCTTCCTTTGATGGACCCCTCAGCCCGCCGCTCAGCATCAAT
GGCAACTTCTCTTTCAAACACGAACCGTCCGCCGAGTTTGAGAAAAATTATGCCTTTACCATGCACTATC
CTGCAGCGACACTGGCAGGGGCCCAAAGCCACGGATCAATCTTCTCAGGCACCGCTGCCCCTCGCTGCGA
GATCCCCATAGACAATATTATGTCCTTCGATAGCCATTCACATCATGAGCGAGTCATGAGTGCCCAGCTC
AATGCCATATTTCATGAT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC201987 protein sequence
Red=Cloning site Green=Tags(s)

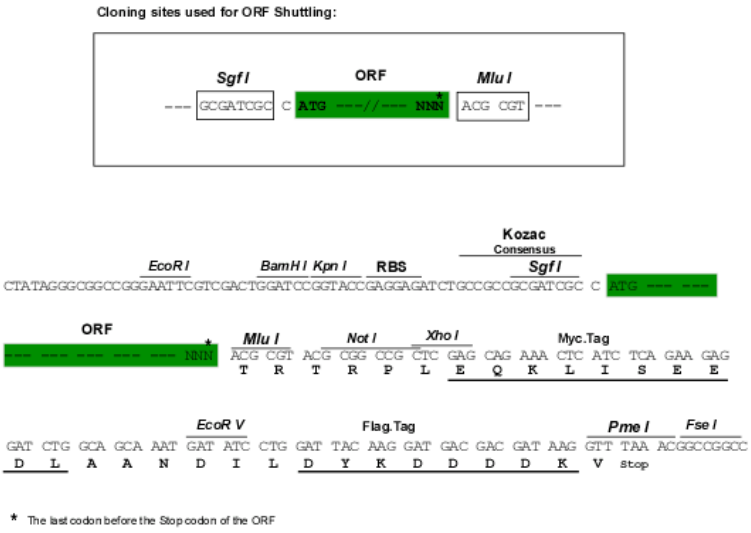
MTKSYSESGLMGEPQPQGPPSWTDECLSSQDEEHEADKKEDDLEAMNAEEDSLRNGGEEEDEDEDLEEEE
EEEEEDDDQKPKRRGPKKKKMTKARLERFKLRRMKANARERNRMHGLNAALDNLRKVVPCYSKTQKLSKI
ETLRLAKNYIWALSEILRSGKSPDLVSFVQTLCKGLSQPTTNLVAGCLQLNPRTFLPEQNQDMPPHLPTA
SASFPVHPYSYQSPGLPSPPYGTMDSSHVFHVKPPPHAYSAALEPFFESPLTDCTSPSFDGPLSPPLSIN
GNFSFKHEPSAEFEKNYAFTMHYPAATLAGAQSHGSIFSGTAAPRCEIPIDNIMSFDSHSHHERVMSAQL
NAIFHD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6023_a10.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002500

ORF Size: 1068 bp

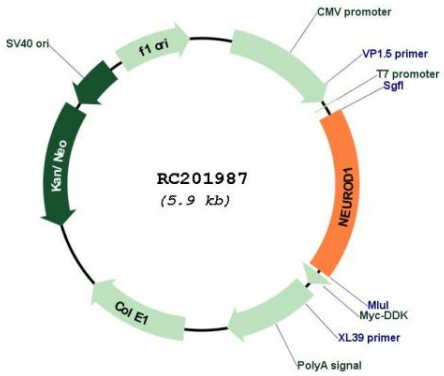
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

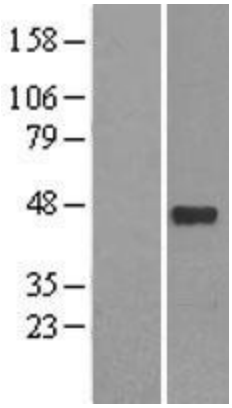
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	1. Centrifuge at 5,000xg for 5min. 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. 3. Close the tube and incubate for 10 minutes at room temperature. 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_002500.4
RefSeq Size:	3002 bp
RefSeq ORF:	1071 bp
Locus ID:	4760
UniProt ID:	Q13562
Cytogenetics:	2q31.3
Domains:	HLH
Protein Families:	Adult stem cells, Druggable Genome, Embryonic stem cells, ES Cell Differentiation/IPS, Transcription Factors
Protein Pathways:	Maturity onset diabetes of the young
MW:	39.9 kDa
Gene Summary:	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]

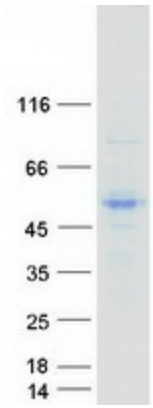
Product images:



Circular map for RC201987



Western blot validation of overexpression lysate (Cat# [LY400891]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201987 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified NEUROD1 protein (Cat# [TP301987]). The protein was produced from HEK293T cells transfected with NEUROD1 cDNA clone (Cat# RC201987) using MegaTran 2.0 (Cat# [TT210002]).