

Product datasheet for **RC234138**

Nicotinic Acetylcholine Receptor alpha 4 (CHRNA4) (NM_001256573) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Nicotinic Acetylcholine Receptor alpha 4 (CHRNA4) (NM_001256573) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Nicotinic Acetylcholine Receptor alpha 4
Synonyms:	BFNC; EBN; EBN1; NACHR; NACHRA4; NACRA4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC234138 representing NM_001256573
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGAAATTCGGCTCCTGGACCTACGACAAGGCCAAGATCGACCTGGTGAACATGCACAGCCGCTGGACC
 AGCTGGACTTCTGGGAGAGTGGCGAGTGGGTTCATCGTGGATGCCGTGGGCACCTACAACACCAGGAAGTA
 CGAGTGTGTGGCGAGATCTACCCGGACATCACCTATGCCTTCGTCATCCGGCGGCTGCCGCTCTTCTAC
 ACCATCAACCTCATCATCCCCTGCCTGCTCATCTCCTGCCTCACCGTGTGGTCTTCTACCTGCCCTCCG
 AGTGTGGCGAGAAGATCACGCTGTGCATCTCCGTGCTGCTGTCGCTCACCGTCTTCTGCTGCTCATCAC
 CGAGATCATCCCCTCCACCTCACTGGTCACTCCACTCATCGGCGAGTACCTGCTGTTCCACATGATCTTC
 GTCACCCTGTCCATCGTCATCACGGTCTTCGTGCTCAACGTGCACCACCGCTCGCCACGCACGCACACCA
 TGCCACCTGGTACGCAGGGTCTTCTGGACATCGTGCCACGCCTGCTCCTCATGAAGCGGCCGCTCCGT
 GGTCAAGGACAATTGCCGCGGCTCATCGAGTCCATGCATAAGATGGCCAGTGCCCGCGCTTCTGGCCC
 GAGCCAGAAGGGGAGCCCCCTGCCACGAGCGGCACCCAGAGCCTGCACCCGCCCTCACCGTCTTCTGTG
 TCCCCCTGGATGTGCCGGCTGAGCCTGGGCCTTCTGCAAGTCAACCTCCGACCAGCTCCCTCCTCAGCA
 GCCCTGGAAGCTGAGAAAGCCAGCCCCACCCCTCGCCTGGACCCTGCCGCCGCCCCACGGCACCCAG
 GCACCAGGGTGGCCAAAGCCAGGTCCCTCAGCGTCCAGCACATGTCCAGCCCTGGCGAAGCGGTGGAAG
 GCGGCGTCCGGTCCGGTCTCGGAGCATCCAGTACTGTGTTCCCCGAGACGATGCCGCCGCCGAGGCAGA
 TGGCCAGGCTGCCGGGCCCTGGCCTCTCGCAACCCACTCGGTGAGTCCCACCCAGACCAGCCC
 TCTCCGTGCAATGCACATGCAAGAAGGAGCCCTTTCGGTGTCCCCGAGCGCCACGGTCAAGACCCGCA
 GCACCAAGCGCCGCCCCGACCTGCCCTGTGCCGCCCTGACCCGGGCGGTGGAGGGCGTCCAGTA
 CATTGCAGACCACCTGAAGGCCGAAGACACAGACTTCTCGGTGAAGGAGGACTGGAAGTACGTGGCCATG
 GTCATCGACCGCATCTTCTCTGGATGTTTCATCATCGTCTGCCTGCTGGGACGGTGGGCCTTCTCTGC
 CGCCCTGGCTGGCTGGCATGATC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC234138 representing NM_001256573
 Red=Cloning site Green=Tags(s)

MKFGSWTYDKAKIDLVMHRSRVDQLDFWESGEWIVDAVGTYNTRKYECCEAIYPDITYAFVIRRLPLFY
 TINLIIPCLLISCLTVLVFYLPSCEKILTLCISVLLSLTVFLLITEIIPSTSLVIPLIGEYLLFTMIF
 VTL SIVITVFVLNVHRSRPTHMPTWVRRVFLDIVPRLLLMKRPSVVKDNCRRLIESMHKMASAPRFPW
 EPEGEPPATSGTQSLHPPSPSFCVPLDVAEPGSPCKSPSDQLPPQQPLEAEKASPHSPGPCRPPHGTQ
 APGLAKARSLSVQHMSSPGEAVEGGVRCRSRSIQYCVPRDDAAPEADGQAAGALASRNTHSAELPPPDQP
 SPCKCTCKKEPSSVSPSATVKTRSTKAPPHLPLSPAL TRAVEGVQYIADHLKAEDTDFSVKEDWKYVAM
 VIDRIFLWMFIIVCLLGTVGLFLPPWLAGMI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_001256573

ORF Size: 1353 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.

RefSeq: [NM_001256573.2](#)

RefSeq Size: 5474 bp

RefSeq ORF: 1356 bp

Locus ID: 1137

UniProt ID: [P43681](#)

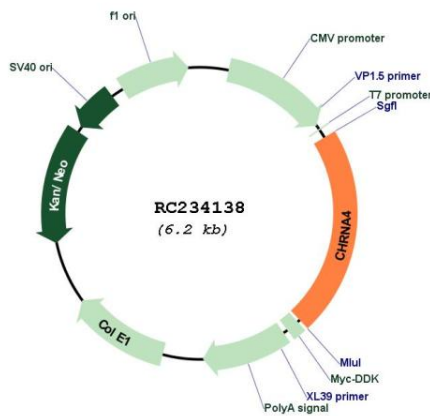
Cytogenetics: 20q13.33

Protein Families: Druggable Genome, Ion Channels: Cys-loop Receptors, Transmembrane

MW: 50.3 kDa

Gene Summary: This gene encodes a nicotinic acetylcholine receptor, which belongs to a superfamily of ligand-gated ion channels that play a role in fast signal transmission at synapses. These pentameric receptors can bind acetylcholine, which causes an extensive change in conformation that leads to the opening of an ion-conducting channel across the plasma membrane. This protein is an integral membrane receptor subunit that can interact with either nAChR beta-2 or nAChR beta-4 to form a functional receptor. Mutations in this gene cause nocturnal frontal lobe epilepsy type 1. Polymorphisms in this gene that provide protection against nicotine addiction have been described. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Feb 2012]

Product images:



Circular map for RC234138