

## Product datasheet for **RC210408**

### Nicotinic Acetylcholine Receptor beta 2 (CHRNA2) (NM\_000748) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Nicotinic Acetylcholine Receptor beta 2 (CHRNA2) (NM_000748) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Nicotinic Acetylcholine Receptor beta 2
Synonyms:	EFNL3; nAChRB2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC210408 representing NM\_000748  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCCGGATCGCC

ATGGCCCCGGCTGCGGCCCGTGGCGCTGCTCCTTGGCTTCGGCCTCCTCCGGCTGTGCTCAGGGGTGT  
 GGGGTACGGATACAGAGGAGCGCTGGTGGAGCATCTCCTGGATCCTCCCGCTACAACAAGCTTATCCG  
 CCCAGCCACCAATGGCTCTGAGCTGGTACAGTACAGCTTATGGTGTCACTGGCCAGCTCATCAGTGTG  
 CATGAGCGGGAGCAGATCATGACCACCAATGTCTGGTACCCAGGAGTGGGAAGATTATCGCCTCACCT  
 GGAAGCCTGAAGAGTTTGACAACATGAAGAAAGTTCGGCTCCCTTCCAAACACATCTGGCTCCCAGATGT  
 GGTCTGTACAACAATGTGACGGCATGTACGAGGTGTCCTTCTATTCCAATGCCGTGGTCTCCTATGAT  
 GGCAGCATCTTCTGGCTGCCCTGCCATCTACAAGAGCGCATGCAAGATTGAAGTAAAGCACTTCCCAT  
 TTGACCAGCAGAACTGCACCATGAAGTTCGGTTCGTGGACCTACGACCGCACAGAGATCGACTTGGTGT  
 GAAGAGTGAGGTGGCCAGCTGGACGACTTCACACCTAGTGGTGTGAGTGGGACATCGTGGCGCTGCCGGC  
 CGGCGCAACGAGAACCCGACGACTCTACGTACGTGGACATCACGTATGACTTATCATTGCGCCGAAGC  
 CGCTCTTCTACACCATCAACCTCATATCCCCTGTGTGCTCATCACCTCGTAGCCATCCTTGTCTTCTA  
 CCTGCCATCCGACTGTGGCGAGAAGATGACGTTGTGCATCTCAGTGTGCTGGCGCTCACGGTCTTCTCTG  
 CTGCTCATCTCCAAGATCGTGCCCTCCACCTCCCTCGACGTGCCGCTCGTCGGCAAGTACCTCATGTTCA  
 CCATGGTGCTTGTACCTTCTCCATCGTACCAGCGTGTGCGTGTCAACGTGCACCACCGCTCGCCAC  
 CACGCACACCATGGCGCCCTGGGTGAAGTTCGTCTTCTGGAGAAGTGGCCGCGCTGCTTTCATGCGAG  
 CAGCCACGCCATCATTGCGCCCGTACGCGCTGCGCCTGCGGCGACGCCAGCGTGAGCGGAGGGCGCTG  
 GAGCCCTCTTCTCCGCGAAGCCCGGGGCGACTCCTGCACGTGCTTTCGTCAACCGCGCTCGGTGCA  
 GGGGTTGGCCGGGCGCTTCGGGGCTGAGCCTGCACCAAGTGGCGGGCCCGGGCGCTCAGGGGAGCGGTGT  
 GGCTGTGGCCTCCGGGAGGCGGTGGACGCGTGCCTTTCATCGCAGACCACATGCGGAGCGAGGACGATG  
 ACCAGAGCGTGAGTGAGGACTGGAAGTACGTGCGCATGGTGTGATCGACCGCTTCTCTGATCTTTGT  
 CTTTGTCTGTGCTTTGGACCATCGGCATGTTCTGACGCTCTCTCCAGAATAACACCACCACCACC  
 TTCCTCACTCAGACCACTAGCCCCAGCTCAAAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC210408 representing NM\_000748  
 Red=Cloning site Green=Tags(s)

MARRCGPVALLLGFLLRLCSGVWGTDEERLVEHLLDPSRYNKLIRPATNGSELVTQQLMVSLAQLISV  
 HEREQIMTTNVWLTQEWEDYRLTWKPEEFDNMKKVRLPSKHIWLPDVVLNNADGMYEVSFYSNVVSVD  
 GSIFWLPPIYKSACKIEVKHFPFDQONCTMKFRSWTYDRTEIDLVLKSEVASLDDFTPSGEWDIVALPG  
 RRNENPDDSTYVDITYDFIIRRKPLFYINLIIPCVLITSLAILVFYLPSDCGEKMTLCISVLLALTVFL  
 LLISKIVPPTSLDVPLVGKYLMTMLVTFISIVTSVCVLNVHRSPTTHTMAPWVKVVFLEKLPALLFMQ  
 QPRHHCARQLRLRRRQREREGALFFREAPGADSCTCFVNRASVQGLAGAFGAEPAPVAGPGRSGEPC  
 GCGLREAVDGVRFIADHMRSEDDQSVSEWDKYMAMVIDRLFLWIFVFCVFGTIGMFLQPLFQNYTTTT  
 FLHSDHSAPSSK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mg2560\\_b01.zip](https://cdn.origene.com/chromatograms/mg2560_b01.zip)

**Restriction Sites:**

Sgfl-Mlul

Cloning Scheme:



ACCN: NM\_000748

ORF Size: 1506 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\\_000748.3](#)

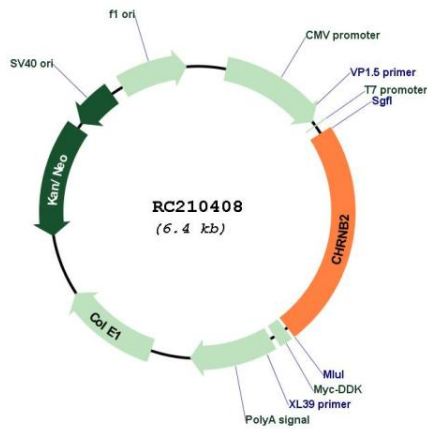
RefSeq Size: 2448 bp

RefSeq ORF: 1509 bp

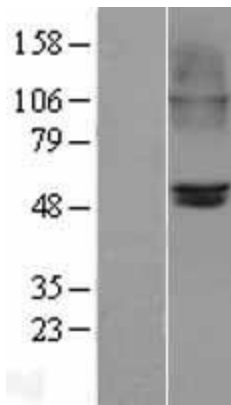
Locus ID: 1141

**UniProt ID:** [P17787](#)  
**Cytogenetics:** 1q21.3  
**Domains:** Neur\_chan\_memb, Neur\_chan\_LBD  
**Protein Families:** Druggable Genome, Ion Channels: Cys-loop Receptors, Transmembrane  
**MW:** 57.02 kDa  
**Gene Summary:** Neuronal acetylcholine receptors are homo- or heteropentameric complexes composed of homologous alpha and beta subunits. They belong to a superfamily of ligand-gated ion channels which allow the flow of sodium and potassium across the plasma membrane in response to ligands such as acetylcholine and nicotine. This gene encodes one of several beta subunits. Mutations in this gene are associated with autosomal dominant nocturnal frontal lobe epilepsy. [provided by RefSeq, Jul 2008]

**Product images:**



Circular map for RC210408



Western blot validation of overexpression lysate (Cat# [LY400251]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210408 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).