

Product datasheet for **RC238663**

CHRNA2 (NM_001282455) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CHRNA2 (NM_001282455) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CHRNA2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>RC238663 representing NM_001282455
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGCCCTCCTGTCTGTGTTCTGTCTTCACAAAGCTCAGCCTGTGGTGGCTCCTTCTGACCCAG
 CAGGTGGAGAGGAAGCTAAGCGCCACCTCCCAGGGCTCCTGGAGACCCACTCTCCTCTCCAGTCCCAC
 GGCATTGCCGCGAGGAGGCTCGCATACCGAGACTGAGGACCGGCTCTTCAAACACCTCTCCGGGGCTAC
 AACCGCTGGGCGCGCCGGTGCCCAACTTCAGACGTGGATGAGAAGAACCAAATGATGACCACCAACG
 TCTGGCTAAAACAGGAGTGGAGCGACTACAACTGCGCTGGAACCCCACTGATTTTGGCAACATCACATC
 TCTCAGGGTCCCTTCTGAGATGATCTGGATCCCCGACATTGTTCTCTACAACAATGCAGATGGGGAGTTT
 GCAGTGACCCACATGACCAAGGCCACCTTCTCCACGGGCACTGTGCACTGGGTGCCCGGCCATCT
 ACAAGAGCTCCTGCAGCATCGACGTACCTTCTCCCTTCGACCAGCAGAACTGCAAGATGAAGTTTGG
 CTCTGGACTTATGACAAGGCCAAGATCGACCTGGAGCAGATGGAGCAGACTGTGGACCTGAAGGACTAC
 TGGGAGAGCGGGAGTGGGCCATCGTCAATGCCACGGGCACTACAACAGCAAGAAGTACGACTGCTGCG
 CCGAGATCTACCCCGACGTACCTACGCCTTCGTATCCGGCGGGTGCCTCTTCTACACCATCAACCT
 CATCATCCCTGCCTGCTCATCTCTGCCTCACTGTGCTGGTCTTCTACCTGCCCTCCGACTGCGGCGAG
 AAGATCACGCTGTGCATTTCCGGTGTGCTGCACTCACCGTCTTCTGCTGCTCATCACTGAGATCATCC
 CGTCCACCTCGTGGTATCCCGCTCATCGGCGAGTACCTGCTGTTACCATGATCTTCGTCACCCCTGTC
 CATCGTCATCACCGTCTTCGTGCTCAATGTGCACCACCGCTCCCCAGCACCCACCCATGCCCACTGG
 GTGCGGGGGCCCTTCTGGGCTGTGTGCCCGGTGGCTTCTGATGAACCGGCCCCACCACCCGTGGAGC
 TCTGCCACCCCTACGCCTGAAGCTCAGCCCTTTATCACTGGCTGGAGAGCAACGTGGATGCCGAGGA
 GAGGGAGGTGGTGGAGGAGGACAGATGGGCATGTGCAGGTCATGTGGCCCTCTGTGGGCACC
 CTCTGCAGCCACGGCCACCTGCACTCTGGGCCTCAGGTCCCAAGGCTGAGGCTCTGCTGCAGGAGGGTG
 AGCTGCTGCTATCACCCACATGCAGAAGGCACTGGAAGGTGTGCACTACATTGCCGACCACCTGCGGTC
 TGAGGATGCTGACTCTTCGGTGAAGGAGGACTGGAAGTATGTTGCCATGGTCATCGACAGGATCTTCTCT
 TGGCTGTTATCATCGTCTGCTTCTGGGGACCATCGGCTCTTCTGCCTCCGTTCTAGCTGGAATGA
 TC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC238663 representing NM_001282455
 Red=Cloning site Green=Tags(s)

MGPSCPVFLSFTKLSLWLLLTPAGGEEAKRPPPRAPGDPLSSPSPTALPQGGSHTEEDRLFKHLFRGY
 NRWARVPNTSDVDEKNQMMTTNVWLKQEWSDYKLRWNPTDFGNITSLRVPSEMIWIPDIVLYNNADGEF
 AVTHMTKAHLFSTGTVHWVPPAIYKSSCSIDVTFPPFDQCNCKMFGSWTYDKAKIDLEQMEQTVLKDY
 WESGEWAIVNATGTYNKKYDCCAIEYDPVYAFVIRRLPLFYTINLIIPCLLISCLTVLVFYLPSDCGE
 KITLCISVLLSLTVFLLITEIIPSTSLVIPLIGEYLLFTMIFVTLISIVITVFLNVHHRSPSTHTMPHW
 VRGALLGCVPRWLLMNRPPPPVELCHPLRLKLSPSYHWLESNVDAAEEREVVVEEDRWACAGHVAPSVGT
 LCSHGHLHSGASGPKAEALLQEGELLLSPHMQKALEGVHYIADHLRSEDADSSVKEDWKYVAMVIDRIFL
 WLFIIIVFLGTIGLFLPPFLAGMI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

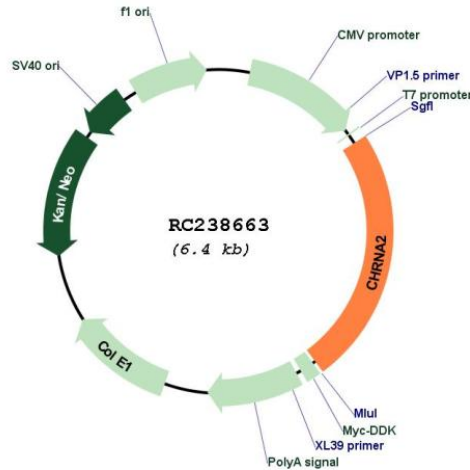
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

Plasmid Map:


ACCN:	NM_001282455
ORF Size:	1542 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:	<ol style="list-style-type: none">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_001282455.2
RefSeq Size:	4038 bp
RefSeq ORF:	1545 bp
Locus ID:	1135
UniProt ID:	Q15822
Cytogenetics:	8p21.2
Protein Families:	Druggable Genome, Ion Channels: Cys-loop Receptors, Transmembrane
MW:	58.6 kDa
Gene Summary:	Nicotinic acetylcholine receptors (nAChRs) are ligand-gated ion channels formed by a pentameric arrangement of alpha and beta subunits to create distinct muscle and neuronal receptors. Neuronal receptors are found throughout the peripheral and central nervous system where they are involved in fast synaptic transmission. This gene encodes an alpha subunit that is widely expressed in the brain. The proposed structure for nAChR subunits is a conserved N-terminal extracellular domain followed by three conserved transmembrane domains, a variable cytoplasmic loop, a fourth conserved transmembrane domain, and a short C-terminal extracellular region. Mutations in this gene cause autosomal dominant nocturnal frontal lobe epilepsy type 4. Single nucleotide polymorphisms (SNPs) in this gene have been associated with nicotine dependence. [provided by RefSeq, Nov 2009]