

## Product datasheet for **RC221382**

### Nicotinic Acetylcholine Receptor alpha 7 (CHRNA7) (NM\_000746) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Nicotinic Acetylcholine Receptor alpha 7 (CHRNA7) (NM_000746) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Nicotinic Acetylcholine Receptor alpha 7
Synonyms:	CHRNA7-2; NACHRA7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC221382 representing NM\_000746  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGCGCTGCTCGCCGGGAGGCGTCTGGCTGGCGCTGGCCGCGTCTCCTGCACGTGTCCTGCAAGGCG  
 AGTTCCAGAGGAAGCTTTACAAGGAGCTGGTCAAGAACTACAATCCCTTGAGAGGCCCGTGCCCAATGA  
 CTCGCAACCACACTACCGTCTACTTCTCCCTGAGCCTCCTGCAGATCATGGACGTGGATGAGAAGAACC  
 GTTTAAACCACCAACATTTGGCTGCAAATGCTTGGACAGATCACTATTTACAGTGAATGTGTCAGAAT  
 ATCCAGGGGTGAAGACTGTTGTTTCCCAGATGGCCAGATTTGAAACCAGACATTTCTTCTATAACAG  
 TGCTGATGAGCGCTTTGACGCCACATCCACACTAACGTGTTGGTGAATCTTCTGGCATTGCCAGTAC  
 CTGCTCCAGGCATATCAAGAGTTCCTGCTACATCGATGACGCTGGTTCCCTTTGATGTGCAGCACT  
 GCAAACGAAGTTGGGCTCTGGTCTTACGGAGGCTGGTCTTGGATCTGCAGATGCAGGAGGCAGATAT  
 CAGTGGCTATATCCCAATGGAGAATGGGACCTAGTGGGAATCCCGGCAAGAGGAGTGAAGGTTCTAT  
 GAGTGTGCAAAAGAGCCCTACCCGATGTCACCTTACAGTGACCATGCGCCGCAGGACGCTCTACTATG  
 GCCTCAACCTGCTGATCCCTGTGTGCTCATCTCCGCCCTCGCCCTGCTGGTGTCTCTGCTTCTGCAGA  
 TTCCGGGGAGAAGATTTCCCTGGGGATAACAGTCTTACTCTCTTACCCTTTCATGCTGCTCGTGGCT  
 GAGATCATGCCCGCAACATCCGATTCGGTACCATTGATAGCCAGTACTTCGCCAGCACCATGATCATCG  
 TGGGCCTCTCGGTGGTGGTGACGGTATCGTGTGCACTACCACCACCACGACCCCGACGGGGGCAAGAT  
 GCCAAGTGGACCAGAGTCATCCTTCTGAAGTGGTGGCGGTGTTCTGCGAATGAAGAGGCCGGGGAG  
 GACAAGGTGCGCCCGCCTGCCAGCACAGCAGCGGCGCTGCAGCCTGGCCAGTGTGGAGATGAGCGCCG  
 TGGCGCCGCCCGCCAGCACAGCGGAACCTGCTACATCGGCTTCCGCGCCCTGGACGGCGTGCATCT  
 TGTCGCCGACCCCGACTCTGGGGTAGTGTGGCCGCATGGCCTGCTCCCCACGCACGATGAGCACCTC  
 CTGCACGGCGGGCAACCCCGAGGGGACCCGACTTGGCCAAGATCCTGGAGGAGTCCGCTACATTG  
 CCAATCGCTTCCGCTGCCAGGACGAAAGCGAGGCGGTCTGCAGCGAGTGAAGTTCGCCGCTGTGTGGT  
 GGACCGCTGTGCTCATGGCTTCTCGGTCTTACCATCATCTGCACCATCGGCATCCTGATGTCGGCT  
 CCCAATCTCGTGGAGGCCGTGTCCAAGACTTTGGC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC221382 representing NM\_000746  
 Red=Cloning site Green=Tags(s)

MRCSPGGVWLALAASLLHVSLQGEFQRKLYKELVKYNYPLERPVANSDSQPLTVYFSLSLQIMDVDEKNQ  
 VLTNNIWLQMSWDHYLQWNVSEYPGVKTVRFPDGGQIWKPDILLYNSADERFDATFHTNVLVNSSGHCQY  
 LPPGIFKSSCYIDVRWFPFDVQHCKLKFGSWSYGGWLDLQMQEADISGYIPNGEWDLVGIPGKRSEFY  
 ECCKEYPDVFTFTVMRRRLYYGLNLLIPCVLISALALLVFLLPADSGEKISLGITVLLSLTVFMLLVA  
 EIMPATSDSVPLIAQYFASTMIIVGLSVVVTIVLVQYHHHDPDGGKMPKWTRVILLNWCWFLMRKRPGE  
 DKVRPACQHKQRRCSLASVEMSAVAPPASNGNLLYIGFRGLDGVHCVPTPDSGVVCGRMACSPHDEHL  
 LHGGQPPEGDPDLAKILEEVRYIANRFRQDESEAVCSEWKFAACVVDRLCLMAFSVFTIICTIGILMSA  
 PNFVEAVSKDFA

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mg2564\\_d07.zip](https://cdn.origene.com/chromatograms/mg2564_d07.zip)

**Restriction Sites:**

Sgfl-Mlul



RefSeq: [NM\\_000746.6](#)

RefSeq Size: 2155 bp

RefSeq ORF: 1509 bp

Locus ID: 1139

UniProt ID: [P36544](#)

Cytogenetics: 15q13.3

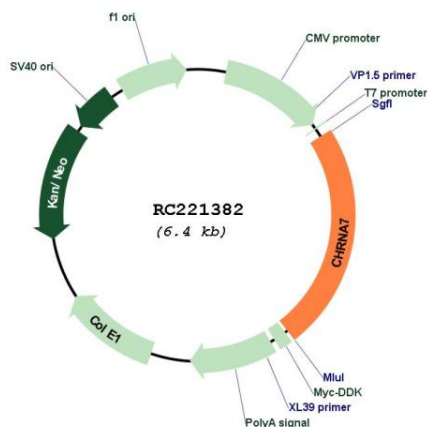
Protein Families: Druggable Genome, Ion Channels: Cys-loop Receptors, Transmembrane

Protein Pathways: Calcium signaling pathway

MW: 56.3 kDa

**Gene Summary:** The nicotinic acetylcholine receptors (nAChRs) are members of a superfamily of ligand-gated ion channels that mediate fast signal transmission at synapses. The nAChRs are thought to be hetero-pentamers composed of homologous subunits. The proposed structure for each subunit 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. The protein encoded by this gene forms a homo-oligomeric channel, displays marked permeability to calcium ions and is a major component of brain nicotinic receptors that are blocked by, and highly sensitive to, alpha-bungarotoxin. Once this receptor binds acetylcholine, it undergoes an extensive change in conformation that affects all subunits and leads to opening of an ion-conducting channel across the plasma membrane. This gene is located in a region identified as a major susceptibility locus for juvenile myoclonic epilepsy and a chromosomal location involved in the genetic transmission of schizophrenia. An evolutionarily recent partial duplication event in this region results in a hybrid containing sequence from this gene and a novel FAM7A gene. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Feb 2012]

### Product images:



Circular map for RC221382