

# Product datasheet for SC321716

## CHRFAM7A (NM\_148911) Human Untagged Clone

## **Product data:**

Product Type:	Expression Plasmids
Product Name:	CHRFAM7A (NM_148911) Human Untagged Clone
Tag:	Tag Free
Symbol:	CHRFAM7A
Synonyms:	CHRNA7; CHRNA7-DR1; D-10; NACHRA7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)

### OriGene Technologies, Inc.

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#### Fully Sequenced ORF:

>OriGene sequence for NM\_148911.1 CGTGGAGCGCCGGCTCGCTGCAGCTCCGGGACTCAACATGCGCTGCTCGCCGGGAGGC GTCTGGCTGGCGCTGGCCGCGTCGCTCCTGCACGTGTCCCTGCAAGGCGAGTTCCAGAGG AAGCTTTACAAGGAGCTGGTCAAGAACTACAATCCCTTGGAGAGGCCCGTGGCCAATGAC TCGCAACCACTCACCGTCTACTTCTCCCTGAGCCTCCTGCAGATCATGGACGTGGATGAG AAGAACCAAGTTTTAACCACCAACATTTGGCTGCAAATGGCATATTCAAGAGTTCCTGCT ACATCGATGTACGCTGGTTTCCCTTTGATGTGCAGCACTGCAAACTGAAGTTTGGGTCCT GGTCTTACGGAGGCTGGTCCTTGGATCTGCAGATGCAGGAGGCAGATATCAGTGGCTATA TCCCCAATGGAGAATGGGACCTAGTGGGAATCCCCGGCAAGAGGAGTGAAAGGTTCTATG AGTGCTGCAAAGAGCCCTACCCCGATGTCACCTTCACAGTGACCATGCGCCGCAGGACGC TCTACTATGGCCTCAACCTGCTGATCCCCTGTGTGCTCATCTCCGCCCTCGCCCTGCTGG TGTTCCTGCTTCCTGCAGATTCCGGGGAGAAGATTTCCCTGGGGATAACAGTCTTACTCT CTCTTACCGTCTTCATGCTGCTCGTGGCTGAGATCATGCCCGCAACATCCGATTCGGTAC CATTGATAGCCCAGTACTTCGCCAGCACCATGATCATCGTGGGCCTCTCGGTGGTGGTGA CAGTGATCGTGCTGCAGTACCACCACCACCGACCGGGGGGGCAAGATGCCCAAGTGGA CCAGAGTCATCCTTCTGAACTGGTGCGCGTGGTTCCTGCGAATGAAGAGGCCCGGGGAGG ACAAGGTGCGCCCGGCCTGCCAGCACAAGCAGCGGCGCTGCAGCCTGGCCAGTGTGGAGA TGAGCGCCGTGGCGCCGCCGCCAGCAACGGGAACCTGCTGTACATCGGCTTCCGCG GCCTGGACGGCGTGCACTGTGTCCCGACCCCCGACTCTGGGGTAGTGTGTGGCCGCATGG CCTGCTCCCCACGCACGATGAGCACCTCCTGCACGGTGGGCAACCCCCCGAGGGGGACC CGGACTTGGCCAAGATCCTGGAGGAGGTCCGCTACATTGCCAACCGCTTCCGCTGCCAGG ACGAAAGCGAGGCGGTCTGCAGCGAGTGGAAGTTCGCCGCCTGTGTGGTGGACCGCCTGT GCCTCATGGCCTTCTCGGTCTTCACCATCATCTGCACCATCGGCATCCTGATGTCGGCTC CCAACTTCGTGGAGGCCGTGTCCAAAGACTTTGCGTAACCACGCCTGGTTCTGTACATGT GGAAAACTCACAGATGGGCAAGGCCTTTGGCTTGGCGAGATTTGGGGGGTGCTAATCCAGG ACAGCATTACACGCCACAACTCCAGTGTTCCCTTCTGGCTGTCAGTCGTGTTGCTTACGG TTTCTTTGTTACTTTAGGTAGTAGAATCTCAGCACTTTGTTTCATATTCTCAGATGGGCT GATAGATATCCTTGGCACATCCGTACCATCGGTCAGCAGGGCCACTGAGTAGTCATTTTG CCCATTAGCCCACTGCCTGGAAAGCCCTTCGGAGAGCTCCCCATGGCTCCTCACCACCGA GACAGTTGGTTTTGCATGTCTGCATGAAGGTCTACCTGAAAATTCAACATTTGCTTTTTG ΑΑΑΑΑΑΑΑΑ

<b>Restriction Sites:</b>	Please inquire
ACCN:	NM_148911
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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

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Reconstitution Method:	<ol> <li>Centrifuge at 5,000xg for 5min.</li> <li>Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>Close the tube and incubate for 10 minutes at room temperature.</li> <li>Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
RefSeq:	<u>NM 148911.1, NP 683709.1</u>
RefSeq Size:	2794 bp
RefSeq ORF:	966 bp
Locus ID:	89832
UniProt ID:	<u>P36544</u>
Cytogenetics:	15q13.2
Domains:	Neur_chan_memb
Protein Families:	Druggable Genome, Ion Channels: Other, Transmembrane
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 family member CHRNA7, which is located on chromosome 15 in a region associated with several neuropsychiatric disorders, is partially duplicated and forms a hybrid with a novel gene from the family with sequence similarity 7 (FAM7A). Alternative splicing has been observed, and two variants exist, for this hybrid gene. The N-terminally truncated products predicted by the largest open

reading frames for each variant would lack the majority of the neurotransmitter-gated ionchannel ligand binding domain but retain the transmembrane region that forms the ion channel. Although current evidence supports transcription of this hybrid gene, translation of the nicotinic acetylcholine receptor-like protein-encoding open reading frames has not been confirmed. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (2) lacks an internal exon compared to variant 1, and is missing the translation initiation site used by the longer variant. Translation from variant 2 initiates at a downstream site relative to variant 1, resulting in isoform (2), which is truncated at the N-terminus compared to isoform 1. Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.

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