

Product datasheet for **RG224138**

SLC5A7 (NM_021815) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SLC5A7 (NM_021815) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SLC5A7
Synonyms:	CHT; CHT1; CMS20; HMN7A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG224138 representing NM_021815
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCTTCCATGTGGAAGGACTGATAGCTATCATCGTGTCTACCTTCTAATTTTCTGCTGGTTGGAATAT
 GGGCTGCCTGGAGAACCAAAAACAGTGGCAGCGCAGAAGAGCGCAGCGAAGCCATCATAGTTGGTGCCG
 AGATATTGGTTTATTGGTTGGTGGATTTACCATGACAGCTACCTGGGTCGGAGGAGGGTATATCAATGGC
 ACAGCTGAAGCAGTTTATGTACCAGTTATGGCCTAGCTTGGGCTCAGGCACCAATTGGATATTCTCTTA
 GTCTGATTTTAGTGGCCTGTTCTTTGCAAAACCTATGCGTTCAAAGGGGTATGTGACCATGTTAGACCC
 GTTTCAGCAAATCTATGGAAAACGCATGGGCGGACTCCTGTTTATTCTGCACTGATGGGAGAAATGTTT
 TGGGCTGCAGCAATTTCTGCTTTGGGAGCCACCATCAGCGTGATCATCGATGGATATGCACATTT
 CTGTCATCATCTGCACTATTGCCACTCTGTACACACTGGTGGGAGGGCTCTATTCTGTGGCCTACAC
 TGATGTGCTTCAGCTCTTTTGCATTTTGTAGGGCTGTGGATCAGCGTCCCTTTGCATTGTCACATCCT
 GCAGTCGACAGACATCGGGTTCAGTGTGTGCATGCCAAAATACAAAAGCCGTGGCTGGAACTGTTGACT
 CATCTGAAGTCTACTCTTGGCTTGATAGTTTTCTGTTGTTGATGTGGTGGAAATCCCATGGCAAGCATA
 CTTTCAGAGGGTCTCTCTTCTTCTCAGCCACCTATGCTCAAGTGTCTTCTTCTGGCAGCTTTCGGG
 TGCTGGTGTATGGCCATCCAGCCATACTATTGGGGCCATTGGAGCATCAACAGACTGGAACCAGACTG
 CATATGGGCTCCAGATCCCAAGACTACAGAAGAGGCAGACATGATTTTACCAATTGTTCTGCAGTATCT
 CTGCCCTGTGTATTTCTTTCTTTGGTCTTGGTGCAGTTTCTGCTGCTGTTATGTCATCAGCAGATTCT
 TCCATCTTGTGCAAGTCCATGTTTGCACGGAACATCTACCAGCTTTCCTTCAGACAAAATGCTTCGG
 ACAAGAATACTGTTGGTTATGCGAATCACAGTGTGTTGTTGGAGCATCTGCAACAGCCATGGCCTT
 GCTGACGAAAACGTGTATGGGCTCTGGTACCTCAGTTCTGACCTTGTTTACATCGTTATCTTCCCCCAG
 CTGCTTTGTGTACTCTTTGTTAAGGGAACCAACCTATGGGGCCGTGGCAGGTTATGTTTCTGGCCTCT
 TCCTGAGAATAACTGGAGGGGAGCCATATCTGTATCTTACGCCCTTGATCTTCTACCCTGGCTATTACCC
 TGATGATAATGGTATATATAATCAGAAATTTCCATTTAAAACACTTGCCATGGTTACATCATTCTTAACC
 AACATTTGCATCTCCTATCTAGCCAAGTATCTATTTGAAAGTGGAACTTGCCACCTAAATTAGATGTAT
 TTGATGCTGTTGTGCAAGACACAGTGAAGAAAACATGGATAAGACAATCTTGTCAAAAATGAAAATAT
 TAAATTAGATGAACCTGCACTTGTGAAGCCACGACAGAGCATGACCTCAGCTCAACTTTCACCAATAAA
 GAGGCCTTCTTGATGTTGATTCCAGTCCAGAAGGGTCTGGGACTGAAGATAATTTACAG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG224138 representing NM_021815
 Red=Cloning site Green=Tags(s)

MAFHVEGLIAIIVFYLLILLVGIWAAWRTKNSGSAEERSEAIIVGGRDIGLLVGGFTMTATWVGGYING
 TAEAVYVPGYGLAWAQAPIGYSLSLILGGLFFAKPMRSKGYVTMLDPFQQIYGKRMGGLLFIPALMGEMF
 WAAAIFSAIGATISVIIDVDMHISVVIISALIAITLYTLVGGLYSVAYTDVVQLFCIFVGLWISVPFALSH
 AVADIGFTAVHAKYQKPWLGTVDSSSEVYSLWDSFLLMLGGIPWQAYFQVLSSSSATYAQVLSFLAAG
 CLVMAIPAILIGAI GASTDWNQTAYGLPDKTTEEADMILPIVLQYLCVYISFFGLGAVSAAVMSSADS
 SILSASSMFARNIYQLSFRQNASDKEIVVMRITVVFVGASATAMALLTKTVYGLWYLSDDLVIIVIFPQ
 LLCVLFVKGTNTYGAVAGYVSGFLRITGGEPYLYLQPLIFYPGYPPDDNGIYNQKFPFKTLAMVTSFLT
 NICISYLAKYLFESGTLPPKLDVFDVAVVARHSEENMDKTIILVKNENIKLDELALVKPRQSMTLSSTFTNK
 EAFLDVDSSEPGSGTEDNLQ

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_021815

ORF Size: 1740 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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.

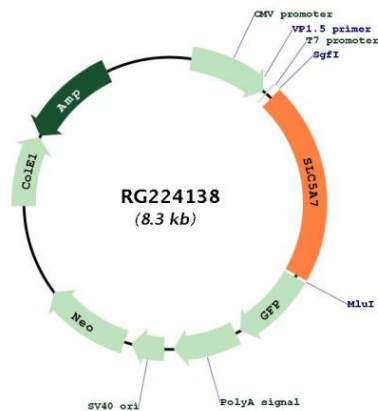
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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_021815.5](#)
RefSeq Size: 5158 bp
RefSeq ORF: 1743 bp
Locus ID: 60482
UniProt ID: [Q9GZV3](#)
Cytogenetics: 2q12.3
Domains: SSF
Protein Families: Transmembrane
Gene Summary:

This gene encodes a sodium ion- and chloride ion-dependent high-affinity transporter that mediates choline uptake for acetylcholine synthesis in cholinergic neurons. The protein transports choline from the extracellular space into presynaptic terminals for synthesis into acetylcholine. Increased choline uptake results from increased density of this protein in synaptosomal plasma membranes in response to depolarization of cholinergic terminals. Dysfunction of cholinergic signaling has been implicated in various disorders including depression, attention-deficit disorder, and schizophrenia. An allelic variant of this gene is associated with autosomal dominant distal hereditary motor neuropathy type VIIA. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2015]

Product images:



Circular map for RG224138