

## Product datasheet for **RC224138**

### SLC5A7 (NM\_021815) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SLC5A7 (NM_021815) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SLC5A7
Synonyms:	CHT; CHT1; CMS20; HMN7A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC224138 representing NM\_021815  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCTTCCATGTGGAAGGACTGATAGCTATCATCGTGTCTACCTTCTAATTTTCTGCTGGTTGGAATAT  
 GGGCTGCCTGGAGAACCAAAAACAGTGGCAGCGCAGAAGAGCGCAGCAAGCCATCATAGTTGGTGGCCG  
 AGATATTGGTTTATTGGTTGGTGGATTTACCATGACAGCTACCTGGGTCGGAGGAGGGTATATCAATGGC  
 ACAGCTGAAGCAGTTTATGTACCAGTTATGGCCTAGCTTGGGCTCAGGCACCAATTGGATATTCTCTTA  
 GTCTGATTTTAGGTGGCCTGTTCTTTGCAAAACCTATGCGTTCAAAGGGGTATGTGACCATGTTAGACCC  
 GTTTCAGCAAATCTATGGAAAACGCATGGGCGGACTCCTGTTTATTCTGCACTGATGGGAGAAATGTTT  
 TGGGCTGCAGCAATTTCTGCTTTGGGAGCCACCATCAGCGTGATCATCGATGGATATGCACATTT  
 CTGTCATCATCTGCACTATTGCCACTCTGTACACACTGGTGGGAGGGCTCTATTCTGTGGCCTACAC  
 TGATGTCGTTGAGCTCTTTTGCATTTTGTAGGGCTGTGGATCAGCGTCCCTTTGCATTGTCACATCCT  
 GCAGTCGACAGACATCGGGTTCAGTGTGTCATGCCAAATACAAAAGCCGTGGCTGGAACTGTTGACT  
 CATCTGAAGTCTACTCTTGGCTTGATAGTTTTCTGTTGTTGATGCTGGGTGGAATCCCATGGCAAGCATA  
 CTTTCAGAGGGTCTCTCTTCTTCTCAGCCACCTATGCTCAAGTGTCTTCTTCTGGCAGCTTTCGGG  
 TGCTGCTGATGGCCATCCAGCCATACTATTGGGGCCATTGGAGCATCAACAGACTGGAACCAGACTG  
 CATATGGGCTCCAGATCCCAAGACTACAGAAGAGGCAGACATGATTTTACCAATTGTTCTGCAGTATCT  
 CTGCCCTGTGATATTTCTTTCTTTGGTCTTGGTGCAGTTTCTGCTGCTGTTATGTCATCAGCAGATTCT  
 TCCATCTTGTGCAAGTCCATGTTTGCACGGAACATCTACCAGCTTTCCTTCAGACAAAATGCTTCGG  
 ACAAGAATACTGTTGGTTATGCGAATCACAGTGTGTTGTTGGAGCATCTGCAACAGCCATGGCCTT  
 GCTGACGAAAACGTGTATGGGCTCTGGTACCTCAGTTCTGACCTTGTGTTACATCGTTATCTTCCCCAG  
 CTGCTTTGTGACTCTTTGTTAAGGGAACCAACCTATGGGGCCGTGGCAGGTTATGTTTCTGGCCTCT  
 TCCTGAGAATAACTGGAGGGGAGCCATATCTGTATCTTACGCCCTTGATCTTCTACCCTGGCTATTACCC  
 TGATGATAATGGTATATATAATCAGAAATTTCCATTTAAAACACTTGCCATGGTTACATCATTCTTAACC  
 AACATTTGCATCTCCTATCTAGCCAAGTATCTATTTGAAAGTGGAACTTGCCACCTAAATTAGATGAT  
 TTGATGCTGTTGTGCAAGACACAGTGAAGAAAACATGGATAAGACAATCTTGTCAAAAATGAAAATAT  
 TAAATTAGATGAACCTGCACTTGTGAAGCCACGACAGAGCATGACCTCAGCTCAACTTTCACCAATAAA  
 GAGGCCTTCTTGATGTTGATTCCAGTCCAGAAGGGTCTGGGACTGAAGATAATTTACAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC224138 representing NM\_021815  
 Red=Cloning site Green=Tags(s)

MAFHVEGLIAIIVFYLLILLVGIWAAWRTKNSGSAEERSEAIIVGGRDIGLLVGGFTMTATWVGGYING  
 TAEAVYVPGYGLAWAQAPIGYSLSLILGGLFFAKPMRSKGYVTMLDPFQQIYGKRMGGLFIPALMGEMF  
 WAAAFSALGATISVIIDVDMHISVVISAL IATLYTLVGGLYSVAYTDVVQLFCIFVGLWISVPFALSH  
 AVADIGFTAVHAKYQKPWLGTVDSSSEVYSWLDSFLLMLGGIPWQAYFQVLSSSSATYAQVLSFLAAF  
 CLVMAIPAILIGAI GASTDWNQTA YGLPDPKTTEEADMILPIVLQYLCPVYISFFGLGAVSAAVMSADS  
 SILSASSMFARNIYQLSFRQNASDKEIVVWMRITVVFVGASATAMALLTKTVYGLWYLSDDLVIYVIFPQ  
 LLCVLFVKGTNTYGAVAGYVSGFLRITGGEPYLYLQPLIFYPGYYPDDNGIYNQKFPFKTLAMVTSFLT  
 NICISYLAKYLFESGTLPPKLDVFDVAVVARHSEENMDKTI L VKNENIKLDELALVKPRQSM T L SSTFTNK  
 EAFLDVDSSEPGSGTEDNLQ

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6161\\_h01.zip](https://cdn.origene.com/chromatograms/mk6161_h01.zip)

**Restriction Sites:**

Sgfl-Mlul

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](mailto: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](#)

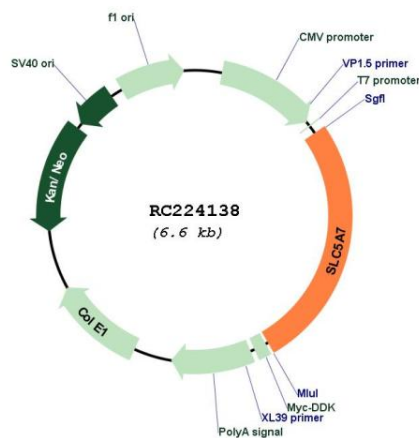
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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).

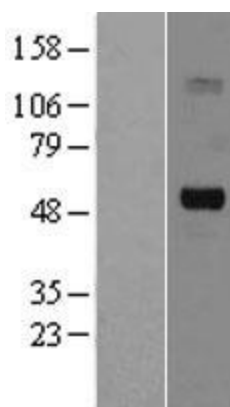
- Reconstitution Method:
1. Centrifuge at 5,000xg for 5min.
  2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
  3. Close the tube and incubate for 10 minutes at room temperature.
  4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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.

<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<u>NM_021815.5</u>
<b>RefSeq Size:</b>	5158 bp
<b>RefSeq ORF:</b>	1743 bp
<b>Locus ID:</b>	60482
<b>UniProt ID:</b>	<u>Q9GZV3</u>
<b>Cytogenetics:</b>	2q12.3
<b>Domains:</b>	SSF
<b>Protein Families:</b>	Transmembrane
<b>MW:</b>	63 kDa
<b>Gene Summary:</b>	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 neuronopathy type VIIA. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2015]

### Product images:



Circular map for RC224138



Western blot validation of overexpression lysate (Cat# [LY402880]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC224138 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).