

Product datasheet for **SC325250**

Choline Acetyltransferase (CHAT) (NM_001142934) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Choline Acetyltransferase (CHAT) (NM_001142934) Human Untagged Clone
Tag:	Tag Free
Symbol:	CHAT
Synonyms:	CHOACTASE; CMS1A; CMS1A2; CMS6
Vector:	<u>pCMV6 series</u>



[View online »](#)

Fully Sequenced ORF: >NCBI ORF sequence for NM_001142934, the custom clone sequence may differ by one or more nucleotides

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ATGGCAGCAAAAACCTCCCAGCAGTGAGGAGTCTGGGCTGCCAAAACCTGCCCGTGCCCCG
CTGCAGCAGACCCCTGGCCACGTACCTGCAGTGCATGCGACACTTGGTGTCTGAGGAGCAG
TTCAGGAAGAGCCAGGCCATTGTGCAGCAGTTTGGGGCCCCTGGTGGCCTCGGCGAGACC
CTGCAGCAGAAAACCTCCTGGAGCGGCAGGAGAAGACAGCCAACCTGGGTGTCTGAGTACTGG
CTGAATGACATGTATCTCAACAACCGCCTGGCCCTGCCTGTCAACTCCAGCCCTGCCGTG
ATCTTTGCTCGGCAGCACTTCCCTGGCACCGATGACCAGCTGAGGTTTGACGCCAGCCTC
ATCTCTGGTGTACTCAGCTACAAGGCCCTGCTGGACAGCCACTCCATTCCCACTGACTGT
GCCAAAGGCCAGCTGTCAGGGCAGCCCTTTGCATGAAGCAATACTATGGGCTCTTCTCC
TCTACCGGCTCCCCGGCATAACCAGGACACGCTGGTGGCTCAGAACAGCAGCATCATG
CCGGAGCCTGAGCAGTCATCGTAGCCTGCTGCAATCAGTTCTTTGTCTTGGATGTTGTC
ATTAATTTCCGCCGTCTCAGTGAGGGGGATCTGTTCACTCAGTTGAGAAAGATAGTCAAA
ATGGCTTCCAACGAGGACGAGCGTTTGCCTCCAATTGGCCTGCTGACGTCTGACGGGAGG
AGCGAGTGGGCCGAGGCCAGGACGGTCTCGTGAAGACTCCACCAACCGGGACTCGCTG
GACATGATTGAGCGCTGCATCTGCCTTGTATGCCTGGACGCGCCAGGAGCGTGGAGCTC
AGCGACACCCACAGGGCACTCCAGCTCCTTACGGCGGAGGCTACAGCAAGAACGGGGCC
AATCGCTGGTACGACAAGTCCCTGCAGTTTGTGGTGGGCCGAGACGGCACCTGCGGTGTG
GTGTGCGAACACTCCCCATTCGATGGCATCGTCTGGTGCAGTGCAGTGCATCTGCTC
AAGCACATGACGCAGAGCAGCAGGAAGCTGATCCGAGCAGACTCCGTGAGCGAGCTCCCC
GCCCCCGGAGGCTGCGGTGGAATGCTCCCCGAAATTAAGGCCACTTAGCCTCCTCG
GCAGAAAAACTTCAACGAATAGTAAAGAACCCTTGACTTCATTGTCTATAAGTTTGACAAC
TATGGGAAAAACATTCATTAAGAAGCAGAAATGCAGCCCTGATGCCTTTCATCCAGGTGGCC
CTCCAGCTGGCCTTCTACAGGCTCCATCGAAGACTGGTGCCACCTACGAGAGCGCGTCC
ATCCGCCGATTCCAGGAGGGACGCGTGGACAACATCAGATCGGCCACTCCAGAGGCACTG
GCTTTTGTGAGAGCCGTGACTGACCACAAGGCTGCTGTGCCAGCTTCTGAGAAGCTTCTG
CTCCTGAAGGATGCCATCCGTGCCAGACTGCATACACAGTCAATGGCCATAACAGGGATG
GCCATTGACAACCACCTGCTGGCACTGCGGGAGCTGGCCCGGCCATGTGCAAGGAGCTG
CCCAGATGTTTCATGGATGAAACCTACCTGATGAGCAACCGGTTTGTCTCTCCACTAGC
CAGGTGCCACAACCACGGAGATGTTCTGCTGCTATGGTCTGTGGTCCCAAATGGGTAT
GGTGCCTGCTACAACCCAGCCAGAGACCATCCTTTTCTGCATCTCTAGCTTTACAGC
TGCAAAGAGACTTCTTCTAGCAAGTTTGCAAAAGCTGTGGAAGAAAGCCTCATTGACATG
AGAGACCTCTGCAGTCTGCTGCCGCTACTGAGAGCAAGCCATTGGCAACAAAGGAAAAA
GCCACGAGGCCAGCCAGGGACACCAACCT

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- Restriction Sites:** Please inquire
- ACCN:** NM_001142934
- 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 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_001142934.1](#), [NP_001136406.1](#)

RefSeq Size: 2528 bp

RefSeq ORF: 1893 bp

Locus ID: 1103

UniProt ID: [P28329](#)

Cytogenetics: 10q11.23

Protein Families: Druggable Genome

Protein Pathways: Glycerophospholipid metabolism

Gene Summary: This gene encodes an enzyme which catalyzes the biosynthesis of the neurotransmitter acetylcholine. This gene product is a characteristic feature of cholinergic neurons, and changes in these neurons may explain some of the symptoms of Alzheimer's disease. Polymorphisms in this gene have been associated with Alzheimer's disease and mild cognitive impairment. Mutations in this gene are associated with congenital myasthenic syndrome associated with episodic apnea. Multiple transcript variants encoding different isoforms have been found for this gene, and some of these variants have been shown to encode more than one isoform. [provided by RefSeq, May 2010]
Transcript Variant: This variant (S) contains alternate 5' exons M and S in the 5' coding region but uses a downstream start codon and encodes isoform 1 (PMID 11172068). Transcript variants R, N1, N2, M and S encode isoform 1.