

## Product datasheet for **RG202198**

### Butyrylcholinesterase (BCHE) (NM\_000055) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Butyrylcholinesterase (BCHE) (NM_000055) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Butyrylcholinesterase
Synonyms:	BCHE; CHE1; CHE2; E1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG202198 representing NM\_000055  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCATAGCAAAGTCACAATCATATGCATCAGATTCTCTTTTGGTTCTTTTGGCTGCGATGCTTATTG  
 GGAAGTCACATACTGAAGATGACATCATAATTGCAACAAAGAATGGAAAAGTCAGAGGGATGAACCTTGAC  
 AGTTTTTGGTGGCACGGTAACAGCCTTTCTTGGAAATCCCTATGCACAGCCACCTCTTGGTAGACTTCGA  
 TTCAAAAAGCCACAGTCTCTGACCAAGTGGTCTGATATTTGGAATGCCACAAAATATGCAAATCTTGCT  
 GTCAGAACATAGATCAAAGTTTTCCAGGCTTCCATGGATCAGAGATGTGGAACCCAAACACTGACCTCAG  
 TGAAGACTGTTTATCTAAATGTATGGATTCCAGCACCTAAACCAAAAAATGCCACTGTATTGATATGG  
 ATTTATGGTGGTGGTTTTCAAAGTGAACATCATCTTTACATGTTTATGATGGCAAGTTCTGGCTCGGG  
 TTGAAAGAGTTATTGTAGTGTCAATGAACATAGGGTGGGTGCCCTAGGATTCCTAGCTTTGCCAGGAAA  
 TCCTGAGGCTCCAGGGAACATGGGTTTATTTGATCAACAGTTGGCTCTTCAGTGGGTTCAAAAAATATA  
 GCAGCCTTTGGTGGAAATCCTAAAAGTGAACCTCTTTGGAGAAAGTCAGGAGCAGCTTCAGTTAGCC  
 TGCATTTGCTTTCTCTGGAAGCCATTCATTGTTCAACAGAGCCATTCTGCAAAGTGGATCCTTTAATGC  
 TCCTTGGGCGGTAACATCTTTTATGAAGCTAGGAACAGAACGTTGAACTTAGCTAAATTGACTGGTTGC  
 TCTAGAGAGAATGAGACTGAAATAATCAAGTGTCTTAGAAATAAAGATCCCAAGAAATCTTCTGAATG  
 AAGCATTGTGTCCCCTATGGGACTCCTTTGTGACGAACTTTGGTCCGACCGTGGATGGTGGTATTTCT  
 CACTGACATGCCAGACATATTACTTGAACCTGGACAATTAATAAAAAACCCAGATTTTGGTGGGTGTTAAT  
 AAAGATGAAGGGCAGCTTTTTTAGTCTATGGTCTCCTGGCTCAGCAAAGATAACAATAGTATCATAA  
 CTAGAAAAGAATTTAGGAAGGTTAAAAATATTTTTCCAGGAGTGAGTGAGTTGGAAAGGAATCCAT  
 CCTTTTTATTACACAGACTGGGTAGATGATCAGAGACCTGAAAACCTACCGTGAGGCCTTGGGTGATGTT  
 GTTGGGGATTATAATTTTATATGCCCTGCCTGGAGTTCACCAAGAAGTTCTCAGAAATGGGAAATAATG  
 CCTTTTCTACTATTTTGAACACCGATCCTCAAACCTCCGTGGCCAGAAATGGATGGGAGTGATGCATGG  
 CTATGAAATTTGAATTTGTCTTTGGTTTACCTCTGGAAAGAAGAGATAATTACACAAAAGCCGAGGAAAT  
 TTGAGTAGATCCATAGTGAACGGTGGGCAATTTTGCAAAATATGGGAATCCAAATGAGACTCAGAACAA  
 ATAGCACAAAGCTGGCCTGTCTTCAAAGCACTGAACAAAATATCTAACCTTGAATACAGAGTCAACAAG  
 AATAATGACGAACTACGTGCTCAACAATGTCGATTCTGGACATCATTTTTTCAAAGTCTTGGAAATG  
 ACAGGAAATATTGATGAAGCAGAAATGGGAGTGGAAAGCAGGATCCATCGCTGGAACAATTACATGATGG  
 ACTGGAATAATCAATTAACGATTACACTAGCAAGAAAGAAAGTTGTGTGGGTCTC

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG202198 representing NM\_000055  
 Red=Cloning site Green=Tags(s)

MHSKVTIICIRFLFWLLLCMLIGKSHTEDDIIATKNGKVRGMNLTVFGGTVTAF LGIPYAQPPLGRLR  
 FKKPQSLTKWSDIWNATKYANSCCQNIQSFPGFHGSEMWNPTDLSEDCLYLNWVWPAPKPKNATVLIW  
 IYGGGFQTGTSSLHVYDGKFLARVERVIVVSMNYRVGALGFLALPGNPEAPGNMGLFDQQLALQWVQKNI  
 AAFGGNPKSVTLFGESAGAASVSLHLLSPGSHSLFTRAILQSGSFNAPWAVTSLYEARNRTLNLAKLTGC  
 SRENETEIIKCLRNDPQEILLNEAFVVPYGTPLSVNFGPTVDGDFLTDMPDILLELGQFKKTQILVGVN  
 KDEGTAFLVYGAPGFSKDNNSIITRKEFQELKIFFPGVSEFGKESILFHYTDWVDDQRPENYREALGDV  
 VGDYNFICPALEFTKKFSEWGNNAFFYYFEHRSSKLPWPEWGMVMHGYEIEFVFGPLERRDNYTKAEEI  
 LRSRIVKRWANFAKYGNPNETQNNSTSWPVFKSTEQKYLTLNTESTRIMTKLRAQQCRFWTSFFPKVLEM  
 TGNIDEAEWEWKAGFHRWNNYMDWKNQFNNDYTSKKESCVGL

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_000055

**ORF Size:** 1806 bp

**OTI Disclaimer:** 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\\_000055.4](#)

**RefSeq Size:** 2444 bp

**RefSeq ORF:** 1809 bp

**Locus ID:** 590

**UniProt ID:** [P06276](#)

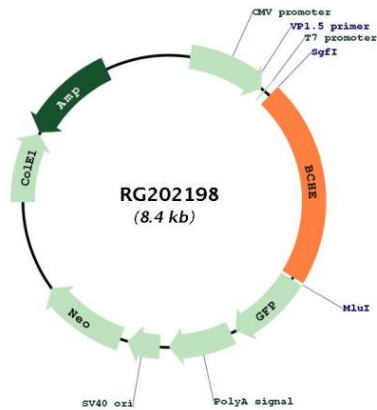
**Cytogenetics:** 3q26.1

**Domains:** COesterase

**Protein Families:** Druggable Genome, Transmembrane

**Gene Summary:** This gene encodes a cholinesterase enzyme and member of the type-B carboxylesterase/lipase family of proteins. The encoded enzyme exhibits broad substrate specificity and is involved in the detoxification of poisons including organophosphate nerve agents and pesticides, and the metabolism of drugs including cocaine, heroin and aspirin. Humans homozygous for certain mutations in this gene exhibit prolonged apnea after administration of the muscle relaxant succinylcholine. [provided by RefSeq, Jul 2016]

**Product images:**



Circular map for RG202198