

## Product datasheet for **RG205167**

### Ceramide synthase 1 (CERS1) (NM\_198207) Human Tagged ORF Clone

#### Product data:

|                           |                                      |
|---------------------------|--------------------------------------|
| <b>Product Type:</b>      | Expression Plasmids                  |
| <b>Tag:</b>               | TurboGFP                             |
| <b>Symbol:</b>            | Ceramide synthase 1                  |
| <b>Synonyms:</b>          | EPM8; GDF-1; GDFI; LAGI; LASSI; UOGI |
| <b>Mammalian Cell</b>     | Neomycin                             |
| <b>Selection:</b>         |                                      |
| <b>Vector:</b>            | pCMV6-AC-GFP (PS100010)              |
| <b>E. coli Selection:</b> | Ampicillin (100 ug/mL)               |

**ORF Nucleotide Sequence:** >RG205167 representing NM\_198207  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGGCGGGCGGGGGCGCGGGGGCGCGGGGGCGAGGGGCGGAGCCATGCCGAGCTACGCGCAGCTAGTGC  
AGCGCGGCTGGGGCAGCGCGCTGGCGGGCGCGGGGCTGCACGAGCTGCGGCTGGGGGCTGGCGGCTCG  
CGGCTGGCTGAGCAGCGCACCTGGCGCCGCCGAGCTGCTGCTGCTGGCGCTCGGCGCGCTGGGCTGG  
ACCGCGCTGCGCTCCGCGGCCACTGCGCGCCTCTTCGGCCCCTGGCGAAGCGGTGCTGCCTCCAGCCCA  
GAGATGCCGCAAGATGCCGAGAGCGCTTGGAAAGTTTCTCTTCTACCTGTGACGCTGGAGCTACAGTGC  
CTACCTGCTGTTTGGCACCAGCTACCCCTTCTTCCATGACCCACCATCTGTCTTCTACGACTGGACGCCG  
GGCATGGCAGTGCCACGGGACATTGCAGCCGCTACCTGCTCCAGGGAAGCTTCTATGGCCACTCCATCT  
ACGCTACGCTATACATGGACACCTGGCGCAAGGACTCGGTGGTCATGCTGCTCCACCAGTGGTCACTCT  
CATCCTCATCGTCTCCTCTACGCATTCCGGTACCACAATGTGGGCATCCTTGTGCTCTTCTGCACGAT  
ATCAGTGACGTGCAGTTGAGTTCACCAAGCTCAACATTTACTTCAAGTCCCGCGGGGCTCCTACCATC  
GGCTGCATGCCTTGGCAGCAGACTTGGGCTGCCTCAGCTTCGGGCTCAGCTGGTTCTGGTTCGCGCTCTA  
CTGGTTCCCGCTCAAGGTCCTGTATGCCACGAGTCACTGCAGTCTGCGCACGGTGCCTGACATCCCTTC  
TACTTCTTCTCAATGCGCTCCTGCTGCTCACCCTTATGAACCTCTACTGGTTCTGTACATCGTGG  
CGTTTGCAGCAAGGTGTTGACAGGCCAGGTGCACGAGCTGAAGGACCTGCGGGAGTATGACACAGCCGA  
GGCCGAGAGCTGAAGCCAGCAAAGCCGAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



**Protein Sequence:** >RG205167 representing NM\_198207  
 Red=Cloning site Green=Tags(s)

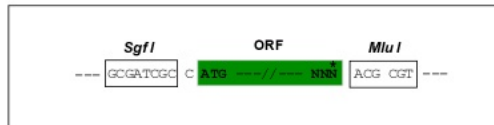
MAAAGPAAGPTGPEPMPSYAQLVQRGWSALAAARGCTDCGWGLARRGLAEHAHLAPPELLLLALGALGW  
 TALRSAATARLFRPLAKRCCLQPRDAAKMPESAWKFLFYLCWSYSAYLLFGTDYPPFHDPPSVFYDWT  
 PGMVPRDIAAAYLLQGSFYGHSIYATLYMDTWRKDSVVMLLHHVVTLLILVSSYAFRYHNVGILVFLHD  
 ISDVQLEFTKLNIFYKSRGGSYHRLHALAADLGCLSGFSGFWFRLYWFPLKVLATSHCSLRTVPDIPF  
 YFFFNALLLLTLMNLYWFLYIVAFAAKVLTGQVHELKDLREYDTAEAQSLKPSKAE

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



CTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCCGCCGATCGCCGGCGCCAGATCT

EcoRI BamHI KpnI RBS Kozac Consensus SgfI AscI

CAAGCTTAAGTCTAGTAGCGGACCG ACG CGT ACG CGG CCG CTC GAG ATG GAG AGC GAC --- ---

HindIII NheI RsrII MluI NotI XhoI GFP Tag

T R T R P L E M E S D - - -

--- GAA GAA AGA GTT TAA ACGGCCGCCGCGGAGCT

- - E E R V Stop

**ACCN:** NM\_198207

**ORF Size:** 1011 bp

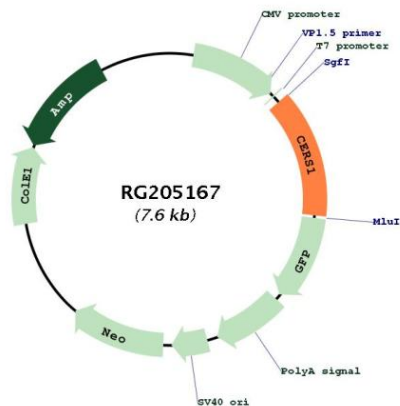
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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).

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Reconstitution Method:</b> | <ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>                                                                    |
| <b>Note:</b>                  | Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>RefSeq:</b>                | <a href="#">NM_198207.2</a> , <a href="#">NP_937850.1</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>RefSeq Size:</b>           | 2137 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>RefSeq ORF:</b>            | 1014 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Locus ID:</b>              | 10715                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>UniProt ID:</b>            | <a href="#">P27544</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Cytogenetics:</b>          | 19p13.11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Protein Families:</b>      | Druggable Genome                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Gene Summary:</b>          | <p>This gene encodes a ceramide synthase enzyme, which catalyzes the synthesis of ceramide, the hydrophobic moiety of sphingolipids. The encoded enzyme synthesizes 18-carbon (C18) ceramide in brain neurons. Elevated expression of this gene may be associated with increased longevity, while decreased expression of this gene may be associated with myoclonus epilepsy with dementia in human patients. This protein is transcribed from a monocistronic mRNA as well as a bicistronic mRNA, which also encodes growth differentiation factor 1. [provided by RefSeq, Jul 2016]</p> |

Product images:



Circular map for RG205167