

Product datasheet for **RG22212**

Ceramide synthase 1 (CERS1) (NM_021267) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ceramide synthase 1 (CERS1) (NM_021267) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Ceramide synthase 1
Synonyms:	EPM8; GDF-1; GDF1; LAG1; LASS1; UOG1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG22212 representing NM_021267 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**

ATGGCGGCGGGGGCCGCGGGGGCCGACGGGGCCGAGCCCATGCCGAGCTACGCGCAGCTAGTGC
AGCGGGCTGGGGCAGCGCGCTGGCGGGCGCGGGGGCTGCACGACTGCGGCTGGGGCTGGCGCGTGC
CGGCCTGGCTGAGCACGCGCACCTGGCGCCGCCGAGCTGCTGCTGGCGCTCGGCGCGCTGGGCTGG
ACCGCCCTGCGCTCCGCGGCCACTGCGCGCCTCTTCGGCCCTGGCGAAGCGGTGCTGCCTCCAGCCCA
GAGATGCCGCAAGATGCCGAGAGCGCTTGAAGTTTCTTTCTACCTGGGAGCTGGAGCTACAGTGC
CTACCTGCTGTTTGGCACGACTACCCCTTCTTCATGACCCACCATCTGTCTTCTACGACTGGAGCGCG
GGCATGGCAGTGCCACGGGACATTGCAGCCGCCTACCTGCTCCAGGGAAGCTTCTATGGCCACTCCATCT
ACGCTACGCTATACATGGACACCTGGCGCAAGGACTCGGTGGTCATGCTGCTCCACCACGTGGTCACTCT
CATCCTCATCGTCTCCTCTACGCCTTCCGGTACCACAATGTGGGCATCCTTGCTCTTCTGCACGAT
ATCAGTGACGTGCAGCTTGAGTTCACCAAGCTCAACATTTACTTCAAGTCCCGCGCGGCTCCTACCATC
GGCTGCATGCCTTGGCAGCAGACTTGGGCTGCCTCAGCTTCGGCTTCAGTGGTTCTGGTTCCGCTCTA
CTGGTTCCCGCTCAAGGTCTGTATGCCACGAGTCACTGCAGTCTGCGCACGGTGCCTGACATCCCTTC
TACTTCTTTCAATGCGCTCCTGCTGCTGCTCACCCTTATGAACCTCTACTGGTTCTGTACATCGTGG
CGTTTGACGCAAGGTGTTGACAGGCCAGGTGCACGAGCTGAAGGACCTGCGGGAGTATGACACAGCCGA
GGCCAGAGCCTGAAGCCAGCAAGCCGAGAAGCCACTGAGGAACGGCTGGTGAAGGACAAGCGCTTC

ACGCGTACGCGGCGGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG222212 representing NM_021267
 Red=Cloning site Green=Tags(s)

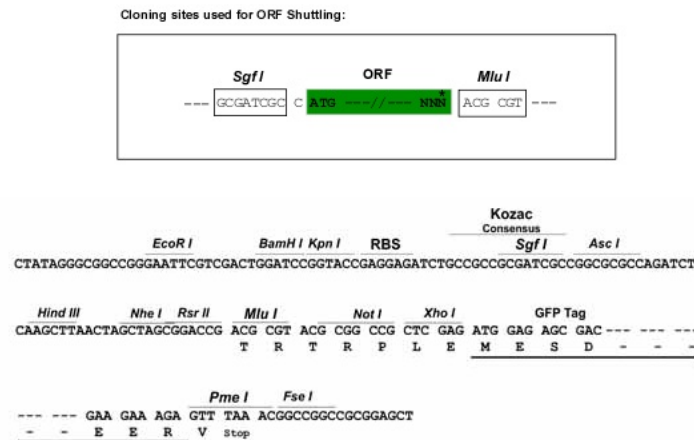
MAAAGPAAGPTGPEPMPSYAQLVQRGWGSALAAARGCTDCGWGLARRGLAEHAHLAPPELLLLALGALGW
 TALRSAATARLFRPLAKRCCLQPRDAAKMPESAWKFLFYLGWSYSAYLLFGTDYPFFHDPPSVFYDWTP
 GMAVPRDIAAAAYLLQGSFYGHSIYATLYMDTWRKDSVVMLLHHVVTLLILIVSSYAFRYHNVGILVFLHD
 ISDVQLEFTKLNIYFKSRGGSYHRLHALAADLGCLSFGFSWFWRLYWFPLKVLATSHCSLRTVPDIPF
 YFFFNALLLLTLMNLYWFLYIVAFAAKVLTGQVHELKDLREYDTAEAQSLKPSKAELRNLGLVKDKRF

TRTRPLE – GFP Tag – V

Chromatograms: https://cdn.origene.com/chromatograms/ja2230_g07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_021267

ORF Size: 1050 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_021267.5](#)

RefSeq Size: 2565 bp

RefSeq ORF: 1053 bp

Locus ID: 10715

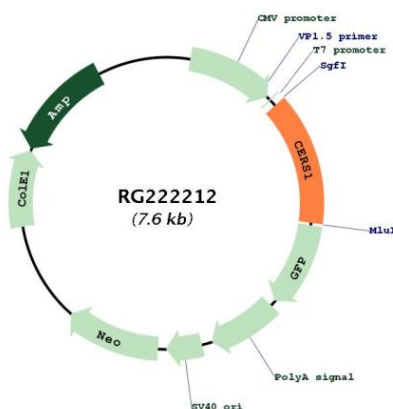
UniProt ID: [P27544](#)

Cytogenetics: 19p13.11

Protein Families: Druggable Genome

Gene Summary: 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]

Product images:



Circular map for RG222212