

Product datasheet for RC206288

Ceramide glucosyltransferase (UGCG) (NM_003358) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ceramide glucosyltransferase (UGCG) (NM_003358) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Ceramide glucosyltransferase
Synonyms:	GCS; GLCT1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC206288 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGCTGCTGGACCTGGCCTTGGAGGGAATGGCCGTCTTCGGGTTCTGCCTCTTCTTGGTGCTGTGGC
TGATGCATTTTCATGGCTATCATCTACACCCGATTACACCTCAACAAGAAGGCAACTGACAAACAGCCTTA
TAGCAAGTCCCAGGTGTCTCTTCTGAAACCACTGAAAGGGTAGATCCTAATCAACAACCTG
GAAACATCTTTGAATTGGATTATCCAAATATGAAGTGCTCCTTTGTGTACAAGATCATGATGATCCAG
CCATTGATGTATGAAGAAGCTTCTGGAAAATATCCAAATGTTGATGCTAGATTGTTTATAGGTGGCAA
AAAAGTTGGCATTAACTCTAAAATTAATAATTTAATGCCAGGATATGAAGTTGCAAAGTATGATCTTATA
TGGATTTGTGATAGTGAATAAGAGTAATTCAGATACACTTACTGACATGGTGAATCAAATGACAGAAA
AAGTAGGCTTGGTTCACGGGCTGCCTTACGTAGCAGACAGACAGGGCTTTGCTGCCACCTTAGAGCAGGT
ATATTTTGGAACTTACATCCAAGATACTATCTCTGCCAATGTAAGTGGTTTCAAATGTGTGACAGGA
ATGTCTTGTAAATGAGAAAAGATGTGTTGGATCAAGCAGGAGGACTTATAGCTTTTGTCTCAGTACATTG
CCGAAGATTACTTTATGGCCAAAGCGATAGCTGACCGAGGTTGGAGGTTTGAATGTCCACTCAAGTTGC
AATGCAAACTCTGGCTCATATTCATTTCTCAGTTTCAATCCAGAATGATCAGGTGGACCAAACTACGA
ATTAACATGCTTCTGCTACAATAATTTGTGAGCCAATTCAGAATGCTTTGTTGCCAGTTAATTATTG
GATGGGCAGCCCACCATGTGTTCCAGATGGGATATTATGGTATTTTTCATGTGTCATTGCCTGGCATGGTT
TATATTTGACTACATTCAACTCAGGGGTGTCCAGGGTGGCACACTGTGTTTTTCAAACCTTGATTATGCA
GTCGCCTGGTTTATCCGCGAATCCATGACAATATACATTTTTTGTCTGCATTATGGGACCAACTATAA
GCTGGAGAACTGGTTCGCTACAGATTACGCTGTGGGGTACAGCAGAGGAAATCCTAGATGTA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC206288 protein sequence
Red=Cloning site Green=Tags(s)

MALLDLALEGMAVFGVFLFLVWLMHFMAIIYTRLHLNKKATDKQPYSKLPVSLKPLKGVDPNLINNL
 ETFFELDYPKYEVLLCVQDHDDPAIDVCKLLGKYPNV DARLFIGGKKVGINPKINLMPGYEVAKYDLI
 WICDSGIRVIPDTLTDVMNQMTKEVGLVHGLPYVADRQGF AATLEQVYFGTSHPRYYISANVTGFKCVTG
 MSCLMRKDVLDQAGGLIAFAQYIAEDYFMAKAIADRGWRFAMSTQVAMQNSGYSISQFQSRMIRWTKLR
 INMLPATIICEPISECFVASLIIGWAAHHVFRWDIMVFFMCHLAWFIFDYIQLRGVQGGTLCFSKLDYA
 VAWFIRESMTIYIFLSALWDPTISWRTGRYRLRCGGTAEIILDV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6197_a03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_003358

ORF Size: 1182 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_003358.3](#)

RefSeq Size: 1637 bp

RefSeq ORF: 1185 bp

Locus ID: 7357

UniProt ID: [Q16739](#)

Cytogenetics: 9q31.3

Domains: Glycos_transf_2

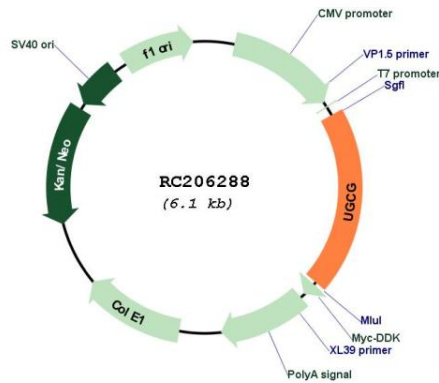
Protein Families: Transmembrane

Protein Pathways: Metabolic pathways, Sphingolipid metabolism

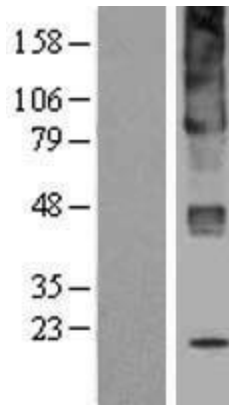
MW: 44.9 kDa

Gene Summary: This gene encodes an enzyme that catalyzes the first glycosylation step in the biosynthesis of glycosphingolipids, which are membrane components containing lipid and sugar moieties. The product of this reaction is glucosylceramide, which is the core structure of many glycosphingolipids. [provided by RefSeq, Dec 2014]

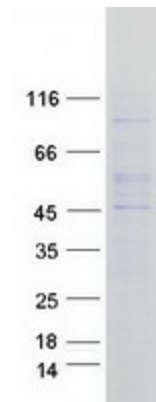
Product images:



Circular map for RC206288



Western blot validation of overexpression lysate (Cat# [LY401148]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206288 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified UGCG protein (Cat# [TP306288]). The protein was produced from HEK293T cells transfected with UGCG cDNA clone (Cat# RC206288) using MegaTran 2.0 (Cat# [TT210002]).