

## Product datasheet for MC209618

### Ugcg (NM\_011673) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Ugcg (NM_011673) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Ugcg
Synonyms:	AU043821; C80537; Epcs21; GlcT-1; Ugcgl
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>MC209618 representing NM_011673 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCGCTGCTGGACCTGGCCCAGGAGGGAATGGCCTTGTTGGCTTCGTGCTCTTCGTGGTGCTGTGGC  
TGATGCATTTTCATGTCCATCATCTACACCCGGTTACACCTCAACAAGAAGGCAACAGACAAAACAGCCGTA  
TAGCAAGCTCCCTGGTGTCTCTCTCTGAAGCCACTGAAGGGGTGGATCCTAACCTAATCAACAACCTG  
GAGACATCTTTGAACTGGATTATCCCAAATGAAGTACTCCTTTGTGTACAAGATCATGATGATCCAG  
CCATTGATGTATGAAGAAATTGCTTGGAAAATACCCAAATGTCGATGCTAGATTATTTATAGGTGGCAA  
AAAGGTTGGCATTAAACCTAAAATTAATAATTTGATGCCAGCATATGAAGTTGAAAATATGATCTCATA  
TGGATTTGTGATAGCGGAATAAGAGTCATCCAGACACATTAAGTACATGGTGAATCAGATGACAGAGA  
AAGTGGGGTGGTCCACGGGCTGCCGATGTAGCCGACAGACAAGGCTTTGCTGCCACCTTAGAGCAGGT  
ATATTTTGAACCTCACACCAAGATCCTATATCTCTGCCAATGTAAGTGGCTTCAAATGTGTGACGGGG  
ATGTCTTGTGGATGAGGAAGGATGTGCTAGATCAGGCAGGAGGGCTCATAGCCTTTGCTCAGTACATTG  
CTGAAGATTACTTTATGGCCAAAGCAATAGCCGACCGAGGTTGGAGGTTTCAATGTCTACTCAAGTTGC  
CATGCAAACTCTGGTTCGTACTCAATTTCTCAGTTTCAATCCAGAATGATCAGGTGGACCAAATTGAGA  
ATTAACATGCTTCTGCTACAATAATTTGTGAGCCAATTCAGAATGCTTTGTTGCCAGTTAATTTATTG  
GGTGGGCAGCCACCATGTATTCAGATGGGATATCATGGTCTTCTCATGTGCCACTGCCTGGCATGGTT  
TATATTTGACTACATTCAACTCAGGGGTGTCAGGGTGGCACACTGTGTTTTTCAAACTTGATTATGCT  
GTGGCCTGGTTACCCGTGAATCCATGACAATCTACATTTTCTGTGCGCATTATGGGACCCGACTATAA  
GCTGGAGAAGTGGTCGCTACAGGTTACGCTGTGGGGGACAGCAGAGGAGATCCTGGATGTG**TAA**

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Chromatograms:** [https://cdn.origene.com/chromatograms/ja1926\\_b11.zip](https://cdn.origene.com/chromatograms/ja1926_b11.zip)

**Restriction Sites:** Sgfl-Mlul

**ACCN:** NM\_011673

**Insert Size:** 1185 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

**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:** [BC050828](#), [AAH50828](#)

**RefSeq Size:** 3719 bp

**RefSeq ORF:** 1185 bp

**Locus ID:** 22234

**UniProt ID:** [O88693](#)

**Cytogenetics:** 4 B3

**Gene Summary:**

Catalyzes at the cytosolic surface of the Golgi, the initial step of the glucosylceramide-based glycosphingolipid/GSL synthetic pathway, the transfer of glucose from UDP-glucose to ceramide to produce glucosylceramide/GlcCer (PubMed:10430909, PubMed:16109770, PubMed:28373486). Glucosylceramide is the core component of glycosphingolipids/GSLs, amphipathic molecules consisting of a ceramide lipid moiety embedded in the outer leaflet of the membrane, linked to one of hundreds of different externally oriented oligosaccharide structures (PubMed:10430909). Glycosphingolipids are essential components of membrane microdomains that mediate membrane trafficking and signal transduction (PubMed:10430909). They are implicated in many fundamental cellular processes, including growth, differentiation, migration, morphogenesis, cell-to-cell and cell-to-matrix interactions (PubMed:10430909). They are required for instance in the proper development and functioning of the nervous system (PubMed:16109770). As an example of their role in signal transduction, they regulate the leptin receptor/LEPR in the leptin-mediated signaling pathway (PubMed:23554574). They also play an important role in the establishment of the skin barrier regulating keratinocyte differentiation and the proper assembly of the cornified envelope (PubMed:17145749, PubMed:23748427). The biosynthesis of GSLs is also required for the proper intestinal endocytic uptake of nutritional lipids (PubMed:22851168).[UniProtKB/Swiss-Prot Function]