

Product datasheet for **RC206689**

GCS1 (MOGS) (NM_006302) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|--|
| Product Type: | Expression Plasmids |
| Product Name: | GCS1 (MOGS) (NM_006302) Human Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | GCS1 |
| Synonyms: | CDG2B; CWH41; DER7; GCS1 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |



[View online »](#)

ORF Nucleotide
Sequence:

>RC206689 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCTCGGGCGAGCGGCGCGCCGCGCAGTCCCGGCAGAGGGAGTCCGGACAGCCGAGAGGGCGGCTC
 GGGAGGCCCGGGCGACGGGACGGCCGGGGCGCGGGCCGCTAGCACGGCTGGAGGAGTGGCTCTGGC
 CGTCGTGGTCTGTCTTTGGCCCTGGGTATGTCGGGGCGCTGGGTGCTGGCGTGGTACCGTGCGCCGCGG
 GCGGTACGCTGCACTCCGCGCCTCCTGTGTTGCCTGCCGACTCTCCAGCCCGCCGTGGCCCCGACC
 TCTTCTGGGGAACCTACCGCCTCACGTCTACTTCGGCATGAAGACCCGACGCCGAAGCCCTCTCAC
 CGGACTGATGTGGGCGCAGCAGGCACCCCGGGGACTCCTAAGCTCAGGCACACGTGTGAGCAGGGG
 GACGGTGTGGTCCCTATGGCTGGGAGTCCACGACGGCTCTCCTTCGGGCGCAACACATCCAGGATG
 GGGCCTTAAGGCTCACCACTGAGTTCGTAAGAGGCTGGGGTACGACGGAGGGGACTGGAGCTGGAG
 AGTGACTGTAGAGCCTCAGGACTCAGTACTTCTGCCCTCCCTTTGGTCTCCCTGTTCTTCTATGGGTG
 ACAGATGGCAAGGAAGTCTACTACCAGAGGTTGGGGCAAGGGGCAAGTTGAAGTTATCAGTGGGCACA
 CCAAGTGAACCTGGTAACCTCCGCTTTACTCTTTGCCACCAACCAGTCCAGGGGATACAGCCCCAAGTA
 TGGCAGCTACAATGTCTTCTGGACCTCCAACCCAGGACTGCCCTGCTGACAGAGATGGTAAAGAGTCGC
 CTAATAGCTGGTTTCAGCATCGCCCCAGGGGCTCCCTGAACGCTACCTCGGCTTGCAGGATCCC
 TGAAGTGGGAGGACAGAGGTCCAAGTGGCAAGGGCAGGGGCAAGTTCTTGATACAGCAGGTGACCCTGAA
 AATTCCCATTTCCATAGAGTTTGTGTTGAATCAGGCAGTGGCCAGGCAGGAGGAAATCAAGCCCTGCCA
 AGACTGGCAGGCAGTCTACTGACCCAGGCCCTGGAGAGCCATGCTGAAGGCTTTAGAGAGCGCTTTGAGA
 AGACCTCCAGCTGAAGGAGAAGGGCTGAGCTGGCGAGCAGGTTTTGGTCAAGCTCCCTCAGCGG
 CCTCCTTGGTGGAAATTGGCTACTTCTACGGACAAGGGCTGGTATTGCCAGACATCGGGGTGGAAGGCTCT
 GAGCAGAAGTGGACCCAGCCCTCTTCCACCCGTACCTCTTTTACAGCAGTGCCTCCCGGTATTCT
 TCCACAGAGGCTTCTTTGGGATGAAGGCTTCCACAGCTGGTGGTTAGCGGTGGGATCCCTCCCTCAC
 CCGGGAAGCCCTTGGCCACTGGCTGGGGCTGCTAAATGCTGATGGCTGGATTGGGAGGAGCAGATACTG
 GGGGATGAGGCCCGAGCCGGGTGCCTCCAGAATTCTAGTACAACGAGCAGTCCACGCCAACCCCAAA
 CCCTACTTTTGCCTGTAGCCATATGCTAGAGGTTGGTGACCCTGACGACTTGGCTTCTCCGAAAGGC
 CTTGCCCGCCTGCATGCCTGGTTTTCTGGCTCCATCAGAGCCAGGCAGGCCACTGCCACTATCTTAC
 CGCTGGCGGGGACGGGACCTGCCTTACCAACCTTACTGAACCCCAAGACCTACCTCTGGGCTGGATG
 ACTACCCCGGGCTTACACCCTTCAGTAACCGAGCGGCACCTGGACCTGCGATGTTGGGTGGCACTGGG
 TGCCCGTGTGCTGACCGGCTGGCAGAGCATCTGGGTGAGGCTGAGGTAGCTGCTGAGCTGGGCCACTG
 GCTGCCTCACTGGAGGCAGCAGAGAGCCTGGATGAGCTGCACTGGGCCCCAGAGCTAGGAGTCTTTGCGA
 ACTTTGGGAACACACAAAAGCAGTACAGCTGAAGCCAGGCCCTCAGGGGCTCGTTCGGGTGGTGGG
 TCGGCCCAACCTCAACTGCAGTATGTAGATGCTCTTGGCTATGTGAGTCTTTTCCCTTGTGCTGCGA
 CTGCTGGACCCACCTCATCCCGCTTGGGCCCTGCTGGACATTCTAGCCGACAGCCCATCTCTGGA
 GCCCTTTGGTTTACGCTCCCTTGACGCTCCAGCTCCTTTATGGCCAGCGCAATTAGAGCATGATCC
 CCCCTACTGGCGGGTGTGTGGCTCAATGTCAACTACCTGGCTTTGGGAGCACTCCACCACTATGGG
 CATCTGGAGGGTCTCACCAGGCTCGGGCTGCCAACTCCAGGTGAGCTCCGTGCCAACGTGGTAGGCA
 ATGTATGGCGCCAGTACCAGGCTACAGGCTTCTTTGGGAGCAGTACAGTACCAGGATGGGCGAGGCAT
 GGGCTGCCGCCCTTCCACGGCTGGACCAGCTTGTCTTACTGGCCATGGCTGAAGACTAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC206689 protein sequence
Red=Cloning site Green=Tags(s)

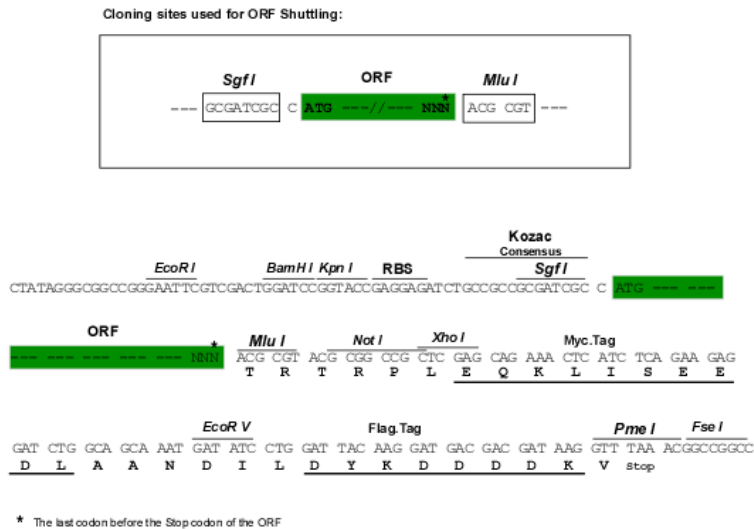
MARGERRRAVPAEGVRTAERAARGGPGRRDGRGGGPRSTAGGVALAVVLSLALGMSGRWVLAWYRARR
AVTLHSAPPVLPADSSSPAVAPDLFWGTYRPHVYFGMKTRSPKPLL TGLMWAQQGTTPGTPKLRHTCEQG
DGVGPYGWFEHDGLSFGHQHIQDGLRL TTEFVKRPGGQHGGDWSWRVTVEPQDSGTSALPLVSLFFYVV
TDGKEVLLPEVGAKGQLKFI SGHTSELGNFRFTLLPPTSPGDTAPKYGSYNVFWTSNPGLPLL TEMVKS
LNSWFQHRPPGASPERYLGLPGSLKWEDRGPSSGQGGQFLIQQVTLKIPISIEFVFE SGAQAGGNQALP
RLAGSLLTQALESHAEGFRERFEKTFQLKEKGLSSGEQVLGQAALSGLLGGIGYFYGQGLVLPDIGVEGS
EQKVDPALFPPVPLFTAVPSRSFFPRGFLWDEGFHQLVVQRWDPSLTREALGHWLGLLNADGWIGREQIL
GDEARARVPPEFLVQRAVHANPPTLLLPAHMLEVGGPDDLAFLRKALPRLHAWFSWLHQSAGPLPLSY
RWRGRDPALPTLLNPKTLPSGLDDYPRASHPSVTERHDLRCWVALGARVLTRLAEHLGEAEVAELGPL
AASLEAAESLDELHWAPELGVFADFGNHTKAVQLKPRPPQGLVRVVGRPQPQLQYVDALGYVSLFPLLLR
LLDPTSSRLGPLLDILADSRHLWSPFGLRSLAASSFYGQRNSEHDPPYWRGAVLNVNYLALGALHHYG
HLEGPQARA AKLHGELRANVGNVWRQYQATGFLWEQYSDRDGRGMGCRPFHGWTSLVLLAMAEDY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6712_d03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_006302

ORF Size: 2511 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_006302.3](#)

RefSeq Size: 2910 bp

RefSeq ORF: 2514 bp

Locus ID: 7841

UniProt ID: [Q13724](#)

Cytogenetics: 2p13.1

Domains: Glyco_hydro_63

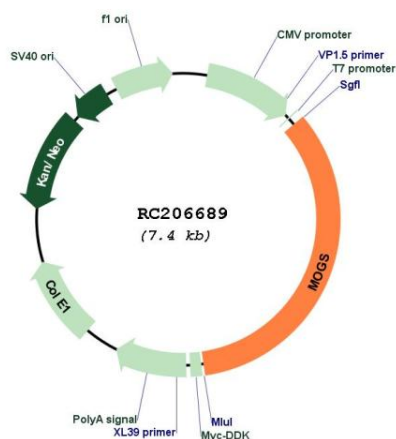
Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Metabolic pathways, N-Glycan biosynthesis

MW: 91.9 kDa

Gene Summary: This gene encodes the first enzyme in the N-linked oligosaccharide processing pathway. The enzyme cleaves the distal alpha-1,2-linked glucose residue from the Glc(3)-Man(9)-GlcNAc(2) oligosaccharide precursor. This protein is located in the lumen of the endoplasmic reticulum. Defects in this gene are a cause of type IIb congenital disorder of glycosylation (CDGIIb). Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Mar 2009]

Product images:



Circular map for RC206689