

Product datasheet for **MG208499**

Csgalnact1 (NM_172753) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Csgalnact1 (NM_172753) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Csgalnact1
Synonyms:	4732435N03Rik; CSGalNAct-1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG208499 representing NM_172753
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGTCCGCCCGGGCTGCTGGGGTGGATTCTCGGGTAGTGATTCTGCTGGTGTCTCTGTTGTGCCA
 TCTCTGTCTCTACATGTTAGCCTGCACCTCCAAAAGGCGACCAGGAGCAGTTGGGACTGCCACGGGCCAA
 TGGACCCACAGGCAAAGATGGCTACCAAGCGGTGCTGCAGGAGCGGAGGAACAGCATCGTAACTATGTG
 AATAGCCTTAAACGACAGATAGCTCAGCTAAAGGATGAACTGCAGGCACGCAGTGAGCAGTTCGCGAGTG
 GGCAGGACCAGGCCAGCGATGCCACCAGCCTGCGCTCAGGCTGGGACCGTGAGCCCAAAGCCAGGCCGA
 TCTGCTGGCCTTCTGCGTGGACAGGTGGACAAGGCCGAGGTACATGCCGGTGTCAAGCTGGCCACGGAG
 TATGCTGCTGTGCCTTTTGATAGCTTCACTCTGCAGAAAGTATACCAGCTGGAGACTGGCCTGACCCGCC
 ACCCTGAGGAGAAGCCAGTGAGGAAAGACAAGCGCGATGAGCTGGTAGAAGCCATCGAATCGGCCCTGGA
 GAGTCTAAACAGCCCTGTGGAGAGCAGCCACACCAGCGTCCTTACACAGCTGCAGACTTCATAGAAGGG
 ATTTACCGAACCAGGATAAAGGCACCTTTGTATGAGCTGACCTTCAAAGGGGACCACAAGCATGAAT
 TCCAGCGACTTGTCTATTTTCGACCTTTTGCCCCATCATGAAAGTGAAAAGGAAAAACTCAACCTGGC
 CAACACGCTTATCAATGTTATTGTGCCCTAGCGAGGAGGGTGGACAAGTTCGGCACTTCATGCAGAAC
 TTCAGGGAGATGTGCATCCAACAGGATGGGAGAGTTTCACTCACCGTTGTTTATTTGGGAAAGAAGAAA
 TGAATGAAGTCAAAGGAATACTTGAACACTTCAAAGCTGCCAATTTAGAACTTCACTTTCATCCA
 ACTGAATGGAGAATCTCCCGGGAAAGGACTGGATGTTGGAGCCCGCTTCTGGAAGGGAAGTAAACGTC
 CTGCTCTTTTCTGTGATGTAGACATCTACTTCACTCGGAGTTCCTCAACACTTGTAGGCTGAACACAC
 AGCCAGGGAAGAAGGTATTTTATCCGGTCTGTTCACTCAGTATTAACCCGGCGTAATCTACGGCCATCA
 CGATGCAGTCCCTCCGCTAGGACAGCAGCTGGTACATAAAGAAGGAAACAGGATTTTGAGGGACTTTGGA
 TTTGGGATGACATGTCAGTACCGGTGAGCTTCAACATAGGTGGATTTGACCTGGACATCAAAGGCT
 GGGGTGGTGAAGATGTGCACCTGTACCGGAAATATCTCCATAGCAACCTCATAGTGGTCCGCACACCTGT
 ACGGGGACTTTTCCACCTGTGGCATGAAAAGCACTGTATGGATGAACTGACCCCTGAGCAGTACAAGATG
 TGCATGCAATCAAAGGCTATGAATGAAGCATCCCATGGGCAGCTGGGGATGCTTGTCTTCCGGCATGAAA
 TAGAGGCTCATCTCGCAAACAGAAGCAGAAAGCCAGCAGTAAAAAGACA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG208499 representing NM_172753
 Red=Cloning site Green=Tags(s)

MVRRLLGWISRVVILLVLLCCAI SVLYMLACTPKGDQEQ LGLPRANGPTGKDG YQAVLQEREEQH RNYV
 NSLKRQIAQLKDELQARSEQFRSGQDQASDATSLRSGWDREPKAQADLLAFLRGQVDKAEVHAGVKLATE
 YAAVPFDSFTLQKVYQLETGLTRHPEEKPVKDKRDELVEAIESALESLNSPVESSPHQRPYTAADFIEG
 IYRTERDKGTLYELTFKGDHKHEFQRLVLF RPF GPIMKVKKEKLNANTLINVI VPLARRVDKFRHFMQN
 FREMCIQQDGRVHLTVVYF GKEEMNEVKGILENTSKAANFRNFTFIQLNGEFSRGKGLDVGARFWKGSNV
 LLFFCDVDIYFTSEFLNTCRLNTQPGKKVFYPVLF SQYNPGVIYGHDAVPP LGQQLVIKKETGFWRDFG
 FGMTQCQYRSDFINIGGFDLDIKGWGGEDVHL YRKYLHSNLI VVRTPV RGLFHLWHEKHCMDEL TPEQYKM
 CMQSKAMNEASHGQLGMLVFRHEIEAHLRKQKQKASSKKT

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-Mlul

ACCN:	NM_172753
ORF Size:	1590 bp
OTI Disclaimer:	<p>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 or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
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:	<ol style="list-style-type: none"> 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:	<u>NM_172753.5</u> , <u>NP_766341.4</u>
RefSeq Size:	3943 bp
RefSeq ORF:	1593 bp
Locus ID:	234356
UniProt ID:	<u>Q8BJQ9</u>
Cytogenetics:	8 B3.3
Gene Summary:	Transfers 1,4-N-acetylgalactosamine (GalNAc) from UDP-GalNAc to the non-reducing end of glucuronic acid (GlcUA). Required for addition of the first GalNAc to the core tetrasaccharide linker and for elongation of chondroitin chains. Important role in chondroitin chain biosynthesis in cartilage formation, and subsequent endochondral ossification (PubMed:17145758, PubMed:21148564). Moreover, is involved in the metabolism of aggrecan (PubMed:21148564).[UniProtKB/Swiss-Prot Function]