

Product datasheet for **RG219296**

CSGALNACT1 (NM_018371) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CSGALNACT1 (NM_018371) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CSGALNACT1
Synonyms:	beta4GalNAcT; ChGn; ChGn-1; CSGalNAcT-1; SDJLABA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG219296 representing NM_018371
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGATGATGGTTCGCGGGGGCTGCTTGCCTGGATTTCCCGGGTGGTGGTTTTGCTGGTCTCTCTGCT
 GTGCTATCTCTGTCTGTACATGTTGGCCTGCACCCCAAAGGTGACGAGGAGCAGCTGGCACTGCCAG
 GGCCAACAGCCCCACGGGAAGGAGGGGTACCAGGCCGTCCTTCAGGAGTGGGAGGAGCAGCACCCGAAC
 TACGTGAGCAGCCTGAAGCGGCAGATCGCACAGCTCAAGGAGGAGCTGCAGGAGAGGAGTGAAGCAGCTCA
 GGAATGGGCAGTACCAAGCCAGCGATGCTGCTGGCCTGGGTCTGGACAGGAGCCCCCAGAGAAAACCCA
 GGCCGACCTCTGGCCTTCTGCACTCGCAGGTGGACAAGGCAGAGGTGAATGCTGGCGTCAAGCTGGCC
 ACAGAGTATGCAGCAGTGCCTTCGATAGCTTTACTCTACAGAAGGTGTACCAGCTGGAGACTGGCCTTA
 CCCGCCACCCGAGGAGAAGCCTGTGAGGAAGGACAAGCGGGATGAGTTGGTGAAGCCATTGAATCAGC
 CTTGGAGACCCTGAACAATCCTGCAGAGAACAGCCCCAATCACCGTCCTTACACGGCCTCTGATTTATA
 GAAGGGATCTACCGAACAGAAAGGGACAAGGGACATTGTATGAGCTCACCTTCAAAGGGGACCACAAC
 ACGAATTCAAACGGCTCATCTTATTTCCGACCATTACGCCCATCATGAAAGTGAAAAATGAAAAGCTCAA
 CATGGCCAACACGCTTATCAATGTTATCGTGCCTTAGCAAAAAGGGTGGACAAGTTCGGCAGTTCATG
 CAGAATTCAGGGAGATGTCATTGAGCAGGATGGGAGAGTCCATCTCACTGTTGTTTACTTTGGGAAAG
 AAGAAATAATGAAGTCAAAGGAATACTTGAAAACACTTCAAAGCTGCCAATTCAGGAACCTTACCTT
 CATCCAGCTGAATGGAGAATTTCTCGGGAAAGGGACTTGATGTTGGAGCCCGTTCTGGAAGGGAAGC
 AACGTCCTTCTCTTTTCTGTGATGTGGACATCTACTTACATCTGAATTCCTCAATACGTGTAGGCTGA
 ATACACAGCCAGGAAGAAGGATTTTATCCAGTTCTTTTTCAGTCAGTACAATCCCTGGCATAATATACGG
 CCACCATGATGCAGTCCCTCCCTTGAACAGCAGCTGGTCATAAAGAAGGAAACTGGATTTTGGAGAGAC
 TTTGGATTTGGGATGACGTGTCAGTATCGGTGAGACTTCAATATAGGTGGGTTTGTCTGGACATCA
 AAGGCTGGGGCGGAGAGGATGTGCACCTTTATCGCAAGTATCTCCACAGCAACCTCATAGTGGTACGGAC
 GCCTGTGCGAGGACTCTCCACCTCTGGCATGAGAAGCGCTGCATGGACGAGCTGACCCCGAGCAGTAC
 AAGATGTGCATGCAGTCCAAGGCCATGAACGAGGCATCCACGGCCAGCTGGGCATGCTGGTGTTCAGGC
 ACGAGATAGAGGCTCACCTTCGCAAACAGAAACAGAAGACAAGTAGCAAAAAACA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG219296 representing NM_018371
 Red=Cloning site Green=Tags(s)

MMVRRGLLAWISRVVLLVLLCCAIISVLYMLACTPKGDDEQLALPRANSPTGKEGYQAVLQEWEEQHRN
 YVSSLKRQIAQLKEELQERSEQLRNGQYQASDAAGLGLDRSPPEKTQADLLAFLHSQVDKAEVNAGVKLA
 TEYAAPFDSFTLQKVYQLETGLTRHPEEKPVKDKRDELVEAIESALETLNPAENSPNHRPYTASDFI
 EGIYRTERDKGTLYELTFKGDHKHEFKRLILFRPFSPIMKVKNEKLNMANLINVIVPLAKRVDKFRQFM
 QNFREMCIEQDGRVHLTVVYFGKEEINEVKGILENTSKAANFRNFTFIQLNGEFSRKGKLDVGARFWKGS
 NVLLFFCDVDIYFTSEFLNLCRLNTQPKKVFYPVLFVLSQYNPGIYGHHDVPPLEQQVLVKKETGFWRD
 FFGMTCQYRSDFINIGGFDLDIKGWGGEDVHL YRKYLSNLIVVRTPVRLFHLWHEKRCMDEL TPEQY
 KMCMQSKAMNEASHGQLGMLVFRHEIEAHLRKQKQKTSKKT

TRTRPLE – GFP Tag – V

Restriction Sites:

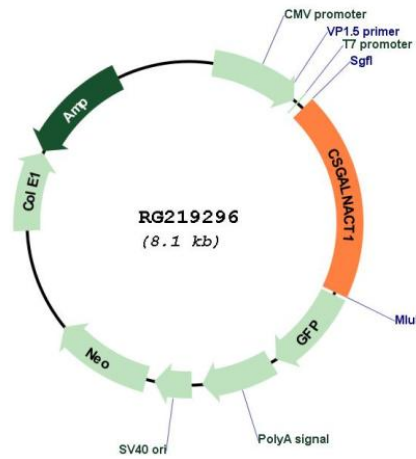
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN:	NM_018371
ORF Size:	1596 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:	<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:	NM_018371.3 , NP_060841.3
RefSeq Size:	3877 bp
RefSeq ORF:	1599 bp
Locus ID:	55790
UniProt ID:	Q8TDX6
Cytogenetics:	8p21.3
Protein Families:	Transmembrane
Protein Pathways:	Chondroitin sulfate biosynthesis, Metabolic pathways
Gene Summary:	This gene encodes an enzyme that transfers N-acetylglucosamine (GalNAc) to the core tetrasaccharide linker and to elongating chondroitin sulfate chains in proteoglycans. Knockout of the orthologous mouse gene indicates that the protein is necessary for normal cartilage development and aggrecan metabolism. Mutations in this gene are associated with multiple sclerosis progression, and with mild skeletal dysplasia and joint laxity. [provided by RefSeq, Aug 2017]