

Product datasheet for **SC116716**

GLCNE (GNE) (NM_005476) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GLCNE (GNE) (NM_005476) Human Untagged Clone
Tag:	Tag Free
Symbol:	GNE
Synonyms:	DMRV; GLCNE; IBM2; NM; Uae1
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Cell Selection:	None



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Fully Sequenced ORF: >OriGene ORF within SC116716 sequence for NM_005476 edited (data generated by NextGen Sequencing)

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ATGGAGAAGAATGGAATAACCGAAAGCTGCGGGTTTGTGTTGCTACTTGTAAACCGTGCA
GATTATTCTAACTTGCCCCGATCATGTTTGGCATTAAAACCGAACCTGAGTTCTTTGAA
CTTGATGTTGGTACTTGGCTCTCACCTGATAGATGACTATGGAATACATATCGAATG
ATTGAACAAGATGACTTTGACATTAACACCAGGCTACACACAATTGTGAGGGGAGAAGT
GAGGCAGCCATGGTGGAGTCAGTAGGCCCTGGCCCTAGTGAAGCTGCCAGATGTCCTTAAT
CGCCTGAAGCCTGATATCATGATTGTTTCATGGAGACAGGTTTGATGCCCTGGCTCTGGCC
ACATCTGCTGCCTTGATGAACATCCGAATCCTTACATTGAAGGTGGGGAAGTCAGTGGG
ACCATTGATGACTCTATCAGACATGCCATAACAAAACCTGGCTCATTATCATGTGTGCTGC
ACCCGAGTGCAGAGCAGCACCTGATATCCATGTGTGAGGACCATGATCGCATCCTTTTG
GCAGGCTGCCCTTCTATGACAACTTCTCTCAGCCAAGAACAAGACTACATGAGCATC
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CCTGTGACCACTGACATTAAGCATTCCATAAAAATGTTTGAATTAACATTGGATGCACTT
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ATGGTTTCGAGTGTGCGGAAGAAGGGCATTGAGCATCATCCCACTTTCGTGCAAGTAAA
CACGTCACATTTGACCAGTTTATACAGTTGGTTGCCCATGCTGGCTGTATGATTGGGAAC
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GCTGTGGGTGCGCTCCATCTCATCCAAGCTGCGAACTTGGCAATGCGAAGGCCAGAGC
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AATCCCTCCCTTGTGATCCTCTCCGGAGTCTGGCCAGTCACTATATCCACATTGTCAA
GACGTCATTGCCAGCAGGCCTTGTCTCCGTGCAGGACGTGGATGTGGTGGTTTCGGAT
TTGGTTGACCCCGCCTGCTGGGTGCTGCCAGCATGGTTCTGGACTACACAACACGCAGG
ATCTACTAG
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Clone variation with respect to NM_005476.5

5' Read Nucleotide Sequence:	>OriGene 5' read for NM_005476 unedited CCCATTCCCCTCGAGGCTAAACCATTAACGCTGCTCTGCTCATTATTTTCACTACTACT AGGGTACAGAGCTCGTGCTTCGGGATGGAAACCTATGGTTATCTGCAGAGGGAGTCATGC TTTCAAGGACCTCATGAACCTATTTTAAAGAACCTCTCAAACGAAACAAGCTAAACTGN GNTTAAAGAATGAAAATAACCTTTAGCTGCGGGTTGTGTTGCTACTTGTAACCGTGCAGA TTATTTAAACTTGCCCCATTATGTTTGGCATTAAAACCGAACCTGAGTTCCTTGAAC TGATGTTGTGGTACTTGGCTCTCACCTGATAGATGACTATGGAAATACATATCGAATGAT TGAACAAGATGACTTTGACATTAACACCCAGGCTACACACAATTGTGAGGGGAGAAGATGA GGCAGCCATGGTGGAGTCAGTAGGCCTGGCCCTAGTGAAGCTGCCAGATGTCCTTAATCG CCTGAAGCCTGATATCATGATTGTTTCATGGAGACAGGTTTGATGCCCTGGCTCTGGCCAC ATCTGCTGCCTTGATGAACATCCGAATCCTTCACATTGAAGGTGGGGAAGTCAGTGGGAC CATTGATGACTCTATCAGACATGCCATAACAAAACCTGGCTCATTATCATGTGTGCTGCAC CCGCAGTGCATAGCAGCACCTGATATCCATGTGTGAGGACCATGATCGCATCCTTTTGGC AAGCTGCCCTTCTATGACAAAATTCTCTCAGCCAAGACAAAGACTACCTGAGCATCATT CGCATGTGGCTAAGTGATGATGTAATACTAAAGATACATTGTTGCACTACGCACCCTGT GACCACTGACTT
3' Read Nucleotide Sequence:	>OriGene 3' read for NM_005476 unedited NAATCCTGNACGCGCCGATTCTANGATCGGTTTTTTTTTTTTTTTTTTTGTAGTAGAGACG GGGTTTCACCATGTTTCACCATGTTAGCCAGGGCGGTCTCGATCTCCTGACCTCGTGATC CGCCCGCCTCGGCTCCCAAAGTGTGGGATTACAGGCGTGAGCCACTGTGCCCGGCCTG GAAGGATTATTAATGCAAACCTCAGGATGAAGTATATCCAGGCAAGGCCTGAAGTCT CAGTGGTATTAATACATTAGTAAGCAGAGTTCTAAGAAGGCTTCTCTCTATTATTGTAG CTGCTTTGGCACAGAAAATTGTGACTGTAACCTACAGGGTTTGAGCTAAAATGACCCCTA GTAAGAAGACATCAGAAAGAATAGCATCTACAAAATAGGAGTGGGAAAGGTGACTCTG GAAGAGGAGACAAAAGTAAAACATTTCTCTGCCAAAGTCACCTGCAGTTCAATACCAG ATTTGATTGTTAAGAAACGGTCACTCCTAAAGACAAGAACTTGATTCCACTCAGGAGCTCT GGAGAGAAGGTCCATGTCTGTTCTGGAGGTCTAGTAGATCCTGCGTGTGTGTAGTCCA GAACCATGCTGGCAGCACCCANCAGGGCCGGTCAACCAATCCGAACCACACATCCAC GTCTGACGGAGAGCAAGGCCTGCTGGCGAATGACGTCTTTGACAATGGGGATATAGTG ACTGGCCAGACTCCGGAGAGATCACCAGGGAGGAATTCTGGTTTGGGGGTGTTACACCC CCCAAAACCAAGCTGTTCCGACCTTTCTTAGGAGCCCGGGCCTTCCCCTTGCCAGTTT CCCAGCTCGGAGAGAAGGAGCCCTCCCGTGCTACATTTTTTGGCCGAACGCCCTCCA CCCACACCGAGTACA
Restriction Sites:	NotI-NotI
ACCN:	NM_005476
Insert Size:	2940 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
RefSeq:	NM_005476.3 , NP_005467.1
RefSeq Size:	3760 bp
RefSeq ORF:	2169 bp
Locus ID:	10020
UniProt ID:	Q9Y223

Domains:	ROK, Epimerase_2
Protein Families:	Druggable Genome
Protein Pathways:	Amino sugar and nucleotide sugar metabolism, Metabolic pathways
Gene Summary:	<p>The protein encoded by this gene is a bifunctional enzyme that initiates and regulates the biosynthesis of N-acetylneuraminic acid (NeuAc), a precursor of sialic acids. It is a rate-limiting enzyme in the sialic acid biosynthetic pathway. Sialic acid modification of cell surface molecules is crucial for their function in many biologic processes, including cell adhesion and signal transduction. Differential sialylation of cell surface molecules is also implicated in the tumorigenicity and metastatic behavior of malignant cells. Mutations in this gene are associated with sialuria, autosomal recessive inclusion body myopathy, and Nonaka myopathy. Alternative splicing of this gene results in transcript variants encoding different isoforms. [provided by RefSeq, Jul 2008]</p> <p>Transcript Variant: This variant (2) contains a different 5' terminal exon compared to transcript variant 1, which results in translation initiation from an in-frame downstream AUG, and a protein (isoform 2) with a shorter N-terminus compared to isoform 1. This variant has been called GNE1 in the scientific literature. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.</p>