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Product datasheet for RG226139

GLCNE (GNE) (NM_001128227) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GLCNE (GNE) (NM_001128227) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GNE
Synonyms:	DMRV; GLCNE; IBM2; NM; Uae1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>RG226139 representing NM_001128227
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAAACCTATGGTTATCTGCAGAGGGAGTCATGCTTTCAAGGACCTCATGAACTCTATTTTAAGAACC
TCTCAAAACGAAACAAGCAAATCATGGAGAAGAATGGAAATAACCGAAAGCTGCGGGTTTGTGTTGCTAC
TTGTAACCGTGCAGATTATTCTAAACTTGCCCCGATCATGTTTGGCATTAAAACCGAACCTGAGTTCTTT
GAACTTGATGTTGTGGTACTTGGCTCTCACCTGATAGATGACTATGGAAATACATATCGAATGATTGAAC
AAGATGACTTTGACATTAACACCAGGCTACACACAATTGTGAGGGGAGAAGATGAGGCAGCCATGGTGGA
GTCAGTAGGCCTGGCCCTAGTGAAGCTGCCAGATGTCCTTAATCGCCTGAAGCCTGATATCATGATTGTT
CATGGAGACAGGTTTGATGCCCTGGCTCTGGCCACATCTGCTGCCTTGATGAACATCCGAATCCTTCACA
TTGAAGGTGGGGAAGTCAGTGGGACCATTGATGACTCTATCAGACATGCCATAACAAAACTGGCTCATTA
TCATGTGTGCTGCACCCGCAGTGCAGAGCAGCACCTGATATCCATGTGTGAGGACCATGATCGCATCCTT
TTGGCAGGCTGCCCTTCCTATGACAAACTTCTCTCAGCCAAGAACAAAGACTACATGAGCATCATTCGCA
TGTGGCTAGGTGATGATGTAAAATCTAAAGATTACATTGTTGCACTACAGCACCCTGTGACCACTGACAT
TAAGCATTCCATAAAAATGTTTGAATTAACATTGGATGCACTTATCTCATTTAACAAGCGGACCCTAGTC
CTGTTTCCAAATATTGACGCAGGGAGCAAAGAGATGGTTCGAGTGATGCGGAAGAAGGGCATTGAGCATC
ATCCCAACTTTCGTGCAGTTAAACACGTCCCATTTGACCAGTTTATACAGTTGGTTGCCCATGCTGGCTG
TATGATTGGGAACAGCAGCTGTGGGGTTCGAGAAGTTGGAGCTTTTGGAACACCTGTGATCAACCTGGGA
ACACGTCAGATTGGAAGAGAAACAGGGGAGAATGTTCTTCATGTCCGGGATGCTGACACCCAAGACAAAA
TATTGCAAGCACTGCACCTTCAGTTTGGTAAACAGTACCCTTGTTCAAAGATATATGGGGATGGAAATGC
TGTTCCAAGGATTTTGAAGTTTCTCAAATCTATCGATCTTCAAGAGCCACTGCAAAAGAAATTCTGCTTT
CCTCCTGTGAAGGAGAATATCTCTCAAGATATTGACCATATTCTTGAAACTCTAAGTGCCTTGGCCGTTG
ATCTTGGCGGGACGAACCTCCGAGTTGCAATAGTCAGCATGAAGGGTGAAATAGTTAAGAAGTATACTCA
GTTCAATCCTAAAACCTATGAAGAGAGGATTAATTTAATCCTACAGATGTGTGTGGAAGCTGCAGCAGAA
GCTGTAAAACTGAACTGCAGAATTTTGGGAGTAGGCATTTCCACAGGTGGCCGTGTAAATCCTCGGGAAG
GAATTGTGCTGCATTCAACCAAACTGATCCAAGAGTGGAACTCTGTGGACCTTAGGACCCCCCTTTCTGA
CACTTTGCATCTCCCTGTGTGGGTAGACAATGATGGCAACTGTGCTGCCCTGGCGGAAAGGAAATTTGGC
CAAGGAAAGGGACTGGAAAACTTTGTTACACTTATCACAGGCACAGGAATCGGTGGTGGAATTATCCATC
AGCATGAATTGATCCACGGAAGCTCCTTCTGTGCTGCAGAACTGGGCCACCTTGTTGTGTCTCTGGATGG
GCCTGATTGTTCCTGTGGAAGCCATGGGTGCATTGAAGCATACGCCTCTGGAATGGCCTTGCAGAGGGAG
GCAAAAAAGCTCCATGATGAGGACCTGCTCTTGGTGGAAGGGATGTCAGTGCCAAAAGATGAGGCTGTGG
GTGCGCTCCATCTCATCCAAGCTGCGAAACTTGGCAATGCGAAGGCCCAGAGCATCCTAAGAACAGCTGG
AACAGCTTTGGGTCTTGGGGTTGTGAACATCCTCCATACCATGAATCCCTCCCTTGTGATCCTCTCCGGA
GTCCTGGCCAGTCACTATATCCACATTGTCAAAGACGTCATTCGCCAGCAGGCCTTGTCCTCCGTGCAGG
ACGTGGATGTGGTGGTTTCGGATTTGGTTGACCCCGCCCTGCTGGGTGCTGCCAGCATGGTTCTGGACTA
CACAACACGCAGGATCTAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

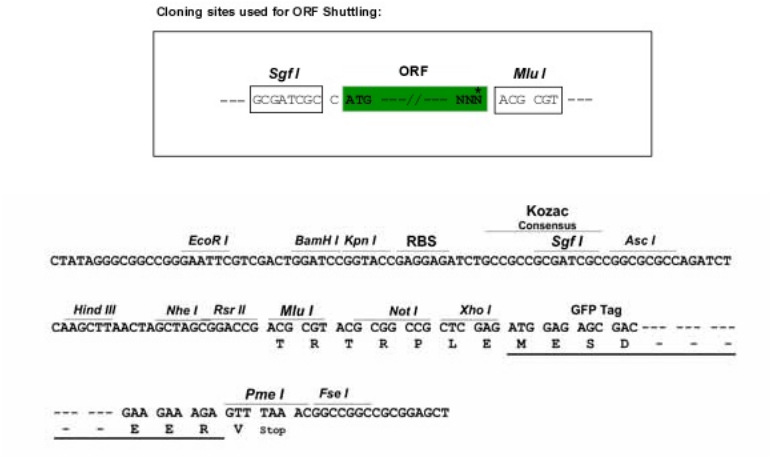
>RG226139 representing NM_001128227
Red=Cloning site Green=Tags(s)

METYGYLQRESCFQGPHELYFKNLSKRNKQIMEKNGNNRKLRVCVATCNRADYSKLAPIMFGIKTEPEFF
ELDVVVLGSHLIDDYGNTYRMIEQDDFDINTRLHTIVRGEDEAAMVESVGLALVKLPDVLNRLKPDIMIV
HGDRFDALALATSAALMNIRILHIEGGEVSGTIDDSIRHAITKLAHYHVCCTRSAEQHLISMCEDHDRIL
LAGCPSYDKLLSAKNKDYMSIIRMWLGDDVKSKDYIVALQHPVTTDIKHSIKMFELTLDALISFNKRTLV
LFPNIDAGSKEMVRVMRKKGIEHHPNFRAVKHVPFDQFIQLVAHAGCMIGNSSCGVREVGAFGTPVINLG
TRQIGRETGENVLHVRDADTQDKILQALHLQFGKQYPCSKIYGDGNAVPRILKFLKSIDLQEPLQKKFCF
PPVKENISQDIDHILETLSALAVDLGGTNLRVAIVSMKGEIVKKYTQFNPKTYEERINLILQMCVEAAAE
AVKLNCRILGVGISTGGRVNPREGIVLHSTKLIQEWNSVDLRTPLSDTLHLPVWVDNDGNCAALAERKFG
QGKGLENFVTLITGTGIGGGIIHQHELIHGSSFCAAELGHLVVSLDGPDCSCGSHGCIEAYASGMALQRE
AKKLHDEDLLLVEGMSVPKDEAVGALHLIQAAKLGNAKAQSILRTAGTALGLGVVNILHTMNPSLVILSG
VLASHYIHIVKDVIRQQALSSVQDVDVVVSDLVDPALLGAASMVLDYTTRRIY

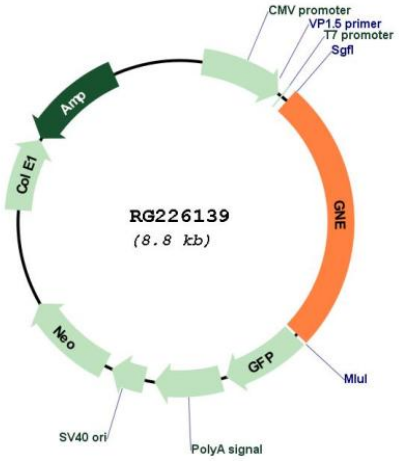
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001128227

ORF Size: 2259 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 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

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_001128227.3
RefSeq Size:	5313 bp
RefSeq ORF:	2262 bp
Locus ID:	10020
UniProt ID:	Q9Y223
Cytogenetics:	9p13.3
Protein Families:	Druggable Genome
Protein Pathways:	Amino sugar and nucleotide sugar metabolism, Metabolic pathways
Gene Summary:	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]