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Product datasheet for RC222626

GLCNE (GNE) (NM_005476) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GLCNE (GNE) (NM_005476) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GLCNE
Synonyms:	DMRV; GLCNE; IBM2; NM; Uae1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

View online »

ORF Nucleotide Sequence:

>RC222626 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAGAAGAATGGAAATAACCGAAAGCTGCGGGTTTGTGTTGCTACTTGTAACCGTGCAGATTATTCTA
AACTTGCCCCGATCATGTTTGGCATTAAAACCGAACCTGAGTTCTTTGAACTTGATGTTGTGGTACTTGG
CTCTCACCTGATAGATGACTATGGAAATACATATCGAATGATTGAACAAGATGACTTTGACATTAACACC
AGGCTACACACAATTGTGAGGGGAGAAGATGAGGCAGCCATGGTGGAGTCAGTAGGCCTGGCCCTAGTGA
AGCTGCCAGATGTCCTTAATCGCCTGAAGCCTGATATCATGATTGTTCATGGAGACAGGTTTGATGCCCT
GGCTCTGGCCACATCTGCTGCCTTGATGAACATCCGAATCCTTCACATTGAAGGTGGGGAAGTCAGTGGG
ACCATTGATGACTCTATCAGACATGCCATAACAAAACTGGCTCATTATCATGTGTGCTGCACCCGCAGTG
CAGAGCAGCACCTGATATCCATGTGTGAGGACCATGATCGCATCCTTTTGGCAGGCTGCCCTTCCTATGA
CAAACTTCTCTCAGCCAAGAACAAAGACTACATGAGCATCATTCGCATGTGGCTAGGTGATGATGTAAAA
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AATTAACATTGGATGCACTTATCTCATTTAACAAGCGGACCCTAGTCCTGTTTCCAAATATTGACGCAGG
GAGCAAAGAGATGGTTCGAGTGATGCGGAAGAAGGGCATTGAGCATCATCCCAACTTTCGTGCAGTTAAA
CACGTCCCATTTGACCAGTTTATACAGTTGGTTGCCCATGCTGGCTGTATGATTGGGAACAGCAGCTGTG
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AGGGGAGAATGTTCTTCATGTCCGGGATGCTGACACCCAAGACAAAATATTGCAAGCACTGCACCTTCAG
TTTGGTAAACAGTACCCTTGTTCAAAGATATATGGGGATGGAAATGCTGTTCCAAGGATTTTGAAGTTTC
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TAGACAATGATGGCAACTGTGCTGCCCTGGCGGAAAGGAAATTTGGCCAAGGAAAGGGACTGGAAAACTT
TGTTACACTTATCACAGGCACAGGAATCGGTGGTGGAATTATCCATCAGCATGAATTGATCCACGGAAGC
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CCTGCTCTTGGTGGAAGGGATGTCAGTGCCAAAAGATGAGGCTGTGGGTGCGCTCCATCTCATCCAAGCT
GCGAAACTTGGCAATGCGAAGGCCCAGAGCATCCTAAGAACAGCTGGAACAGCTTTGGGTCTTGGGGTTG
TGAACATCCTCCATACCATGAATCCCTCCCTTGTGATCCTCTCCGGAGTCCTGGCCAGTCACTATATCCA
CATTGTCAAAGACGTCATTCGCCAGCAGGCCTTGTCCTCCGTGCAGGACGTGGATGTGGTGGTTTCGGAT
TTGGTTGACCCCGCCCTGCTGGGTGCTGCCAGCATGGTTCTGGACTACACAACACGCAGGATCTAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC222626 protein sequence
Red=Cloning site Green=Tags(s)

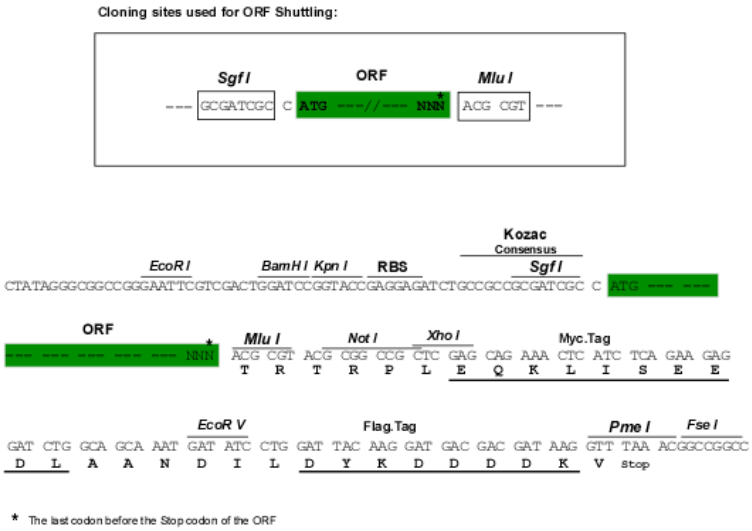
MEKNGNNRKLRVCVATCNRADYSKLAPIMFGIKTEPEFFELDVVVLGSHLIDDYGNTYRMIEQDDFDINT
RLHTIVRGEDEAAMVESVGLALVKLPDVLNRLKPDIMIVHGDRFDALALATSAALMNIRILHIEGGEVSG
TIDDSIRHAITKLAHYHVCCTRSAEQHLISMCEDHDRILLAGCPSYDKLLSAKNKDYMSIIRMWLGDDVK
SKDYIVALQHPVTTDIKHSIKMFELTLDALISFNKRTLVLFPNIDAGSKEMVRVMRKKGIEHHPNFRAVK
HVPFDQFIQLVAHAGCMIGNSSCGVREVGAFGTPVINLGTRQIGRETGENVLHVRDADTQDKILQALHLQ
FGKQYPCSKIYGDGNAVPRILKFLKSIDLQEPLQKKFCFPPVKENISQDIDHILETLSALAVDLGGTNLR
VAIVSMKGEIVKKYTQFNPKTYEERINLILQMCVEAAAEAVKLNCRILGVGISTGGRVNPREGIVLHSTK
LIQEWNSVDLRTPLSDTLHLPVWVDNDGNCAALAERKFGQGKGLENFVTLITGTGIGGGIIHQHELIHGS
SFCAAELGHLVVSLDGPDCSCGSHGCIEAYASGMALQREAKKLHDEDLLLVEGMSVPKDEAVGALHLIQA
AKLGNAKAQSILRTAGTALGLGVVNILHTMNPSLVILSGVLASHYIHIVKDVIRQQALSSVQDVDVVVSD
LVDPALLGAASMVLDYTTRRIY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6441_b05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_005476

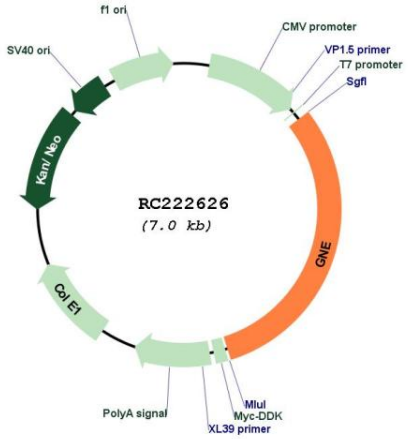
ORF Size: 2166 bp

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

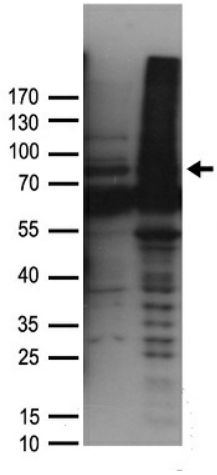
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_005476.7
RefSeq Size:	5329 bp
RefSeq ORF:	2169 bp
Locus ID:	10020
UniProt ID:	Q9Y223
Cytogenetics:	9p13.3
Domains:	ROK, Epimerase_2
Protein Families:	Druggable Genome
Protein Pathways:	Amino sugar and nucleotide sugar metabolism, Metabolic pathways
MW:	79.3 kDa
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]

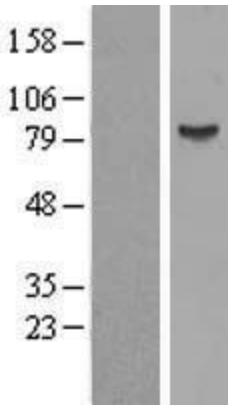
Product images:



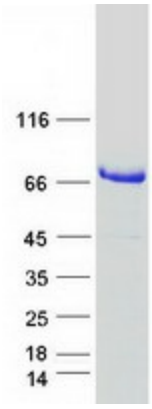
Circular map for RC222626



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY GNE (Cat# RC222626, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-GNE antibody(Cat# [TA890043]). Positive lysates [LY417278] (100ug) and [LC417278] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY417278]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222626 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GNE protein (Cat# [TP322626]). The protein was produced from HEK293T cells transfected with GNE cDNA clone (Cat# RC222626) using MegaTran 2.0 (Cat# [TT210002]).