

Product datasheet for RC211292

GLDC (NM_000170) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GLDC (NM_000170) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GLDC
Synonyms:	GCE; GCSP; HYGN1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC211292 representing NM_000170 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCAGTCCTGTGCCAGGGCGTGGGGCTGCGCCTGGGCCGCGGGTTCGGGGCGGCCCGCCCTGGCTG
GGGGATCGGGCCGTGCTGGGCGCCGGAGCCGGGACAGCAGCAGTGGCGCGGGGACAGCGCCCGCGC
TGGGGCCTCGCGCCTCTGGAGCGCCTTCTGCCAGACACGACGACTTCGCTCGGAGGCACATCGGCCCT
GGGGACAAAGACCAGAGAGAGATGCTGCAGACCTTGGGGCTGGCAGCATTGATGAATTGATCGAGAAGA
CGGTCCCTGCCAACATCCGTTTAAAAGACCCTTGAAAATGGAAGACCCTGTTTGTAAAATGAAATCCT
TGCAACTCTGCATGCCATTTCAAGCAAAAACCAGATCTGGAGATCGTATATTGGCATGGGCTATTATAAC
TGCTCAGTGCCACAGACGATTTTGCGAACTTACTGGAGAACTCAGGATGGATCACCCAGTATACTCCAT
ACCAGCCTGAGGTGTCTCAGGGGAGGCTGGAGAGTTTACTCAACTACCAGACCATGGTGTGTGACATCAC
AGGCCTGGACATGGCCAATGCATCCCTGCTGGATGAGGGGACTGCAGCCGAGAGGCACTGCAGCTGTGC
TACAGACACAACAAGAGGAGGAAATTTCTGTTGATCCCCGTTGCCACCCACAGACAATAGCTGTTGTCC
AGACTCGAGCCAAATATACTGGAGTCTCACTGAGCTGAAGTTACCCTGTGAAATGGACTTCAGTGGAAA
AGATGTCACTGGAGTGTGTTCCAGTACCAGACACGGAGGGGAAGGTGGAAGACTTTACGGAACCTGTCG
GAGAGAGCTCATCAGAGTGGGAGCCTGGCCTGCTGTGCTACTGACCTTTTACGTTTGTGATCCTTGAGGC
CACCTGGAGAATTTGGGTAGACATCGCCCTGGGCAGCTCCAGAGATTTGGAGTGCCACTGGGCTATGG
GGGACCCCATGCAGCATTTTTGCTGTCCGAGAAAGCTTGGTGAAGATGATGCCTGGAAGATGGTGGGG
GTAACAAGAGATGCCACTGGGAAAGAAGTGTATCGTCTTCTTCAAACCAGGGAGCAACACATTCGGA
GAGACAAGGCTACCAGCAACATCTGTACAGCTCAGGCCCTCTGGCGAATATGGCTGCCATGTTTGAAT
CTACCATGGTTCCCATGGGCTGGAGCATATTGCTAGGAGGTACATAATGCCACTTTGATTTTGTGAGAA
GGTCTCAAGCGAGCAGGGCATCAACTCCAGCATGACCTGTTCTTTGATACCTTGAAGATTCACTGTGGCT
GCTCAGTGAAGGAGTCTTGGCAGGGCCGCTCAGCGGCAGATCAATTTTCGGCTTTTGTAGGATGGCAC
ACTTGGTATTCTTGTGAAACAGTCAATGAAAAGATCTGGACGATTTGTTGTGATCTTTGTTGT



[View online »](#)

GAGTCATCTGCAGAACTGGTTGCTGAAAGCATGGGAGAGGAGTGCAGAGGTATCCAGGGTCTGTGTTCA
 AGAGGACCAGCCCGTTCCCTCACCCATCAAGTGTCAACAGCTACCACTCTGAAACAAACATTGTCCGGTA
 CATGAAGAACTGGAAAAAAGACATTTCCCTTGTTCACAGCATGATCCACTGGGATCCTGCACCATG
 AAAGTGAACAGTTCGCTGAACTCGCACCTATCACATGGAAGAATTTGCAAACATCCACCCCTTTGTGC
 CTCTGGATCAAGCTCAAGGATATCAGCAGCTTTCCGAGAGCTTGAGAAGGATTTGTGTGAACTCACAGG
 TTATGACCAGGTCTGTTCCAGCCAAACAGCGGAGCCAGGAGAATATGCTGGACTGGCCACTATCCGA
 GCCTACTTAAACCAGAAAGGAGAGGGGCACAGAACGGTTTGCCTCATTCCGAAATCAGCACATGGGACCA
 ACCCAGCAAGTGCCACATGGCAGGCATGAAGATTCAGCCTGTGGAGGTGGATAAATATGGGAATATCGA
 TGCAGTTCACCTCAAGGCCATGGTGGATAGCACAAGGAGAACCCTAGCAGCTATCATGATTACATACCCA
 TCCACCAATGGGGTGTGTTGAAGAGAACATCAGTGACGTGTGTGACCTCATCCATCAACATGGAGGACAGG
 TCTACCTAGACGGGGCAAATATGAATGCTCAGGTGGGAATCTGTGCGCCCTGGAGACTTCGGGTCTGATGT
 CTCGCACCTAAATCTTACAAGACCTTCTGCATCCCCACGGAGGAGGTGGTCTGGCATGGGGCCATC
 GGAGTGAAGAAACATCTGCCCCGTTTTGCCCCAATCATCCGTCATTTCACTAAAGCGGAATGAGGATG
 CCTGTCTGTGGAAACCGTCAGTGGGGCCCATGGGGCTCCAGTCCATCTTGCCATTTCTGGGCTTA
 TATCAAGATGATGGGAGCAAGGTCTTAAACAAGCCACGAAACTGCGATATTAATGCCAACTACATG
 GCCAAGCGATTAGAAACACACTACAGAATCTTTTCAGGGGTGCAAGAGGTTATGTGGGTGATGAATTTA
 TTTTGGACACGAGACCCCTCAAAAAGTCTGCAAAATATTGAGGCTGTGGATGTGGCCAAGGACTCCAGGA
 TTATGGATTTACGCCCTACCATGTCTGGCCTGTGGCAGGGACCCCTCATGGTGGAGCCCACTGAGTCG
 GAGGACAAGGCAGAGCTGGACAGATTCTGTGATGCCATGATCAGCATTCCGCAGGAAATTGCTGACATTG
 AGGAGGGCCGCATCGACCCAGGGTCAATCCGCTGAAGATGTCTCCACACTCCCTGACCTGCGTTACATC
 TCCCCTGGGACCGGCTTATTCAGAGAGGTGGCAGCATTCCCACTCCCCTTCGTGAAACCAGAGAAC
 AAATCTGGCCAACGATTGCCCGGATTGATGACATATATGGAGATCAGCACCTGGTTGTACCTGCCAC
 CCATGGAAGTTTATGAGTCTCCATTTTCTGAACAAAAGAGGGCGTCTTCT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC211292 representing NM_000170
 Red=Cloning site Green=Tags(s)

MQSCARAWGLRLGRVGGRRLAGSGPCWAPRSRDSGSSGGDSAAAGASRLLERLLPRHDFARRHIGP
 GDKDQREMLQTLGLASIDELIEKTVPANIRLKRPLKMDPVCENEILATLHAISSKNQIWRYSYIGMYYN
 CSVPQITLRLNLENSGWITQYTPYQPEVSQGRLESLLNYQTMVCDITGLDMANASLLDEGTAEEALQLC
 YRHNRKRKFLVDRPCHPQTIHAVVQTRAKYTGVLTELKLPCEMDFSGKDVSGVLFQYDTEGKVEDFTEL
 ERAHQSGSLACCATDLLALCILRPPGEFGVDIALGSSQRFVPLGYGGPHAAFFAVRESLVRMMPGRMVG
 VTRDATGKEVYRLALQTRQHIRRDKATSNICTAQALLANMAAMFAIYHGSHGLEHIARRVHNATLILSE
 GLKRAGHQLQHDLFFDTLKIQCSCSVKEVLGRAAQRFINFRLEFDGTLGISLDETVNEKDLDDLWIFGC
 ESSAELVAESMGEECRGIPGSVFKRTSPFLTHQVFNSYHSETNIVRYMKLENKDISLVHSMIPLGSCTM
 KLNSSSELAPITWKEFANIHPFVPLDQAQGYQQLFRELEKDLCELLTGYDQVCFQPNSSGAQGEYAGLATIR
 AYLNQKGEHRVCLIPKSAHGTPASAHMAGMKIQPVEVDKYGNIDAVHLKAMVDKHKENLAAIMITYP
 STNGVFEENISDVCDLHQHGGQVYLDGANMNAQVVICRPGDFGSDVSHLNLHKTFCIPHGGGGPGMPI
 GVYKHLAPFLPNHPVISLKRNEACPVGTVAAPWGSSSILPISWAYIKMMGGKGLQATETAILNANYM
 AKRLETHYRILFRGARGYVGEHFIIDTRPFKKSANIEAVDVAKRQDYGFHAPTMSWPVAGTLMVEPTES
 EDKAELDRFCDAMISIRQEIADIEEGRIDPRVNLKMSPHSLTCVTSSHWRPYSREVAAPLFPVKPEN
 KFWPTIARIDDIYGDQHLVCTCPPMEVYESPFSEQKRASS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mg4827_c01.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_000170

ORF Size: 3060 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.

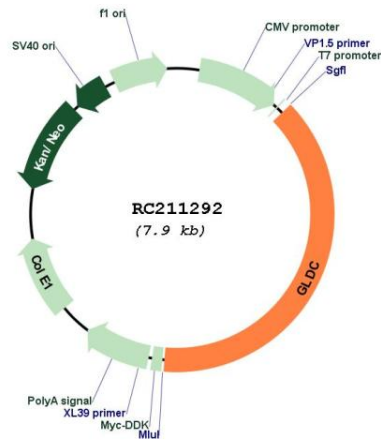
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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.

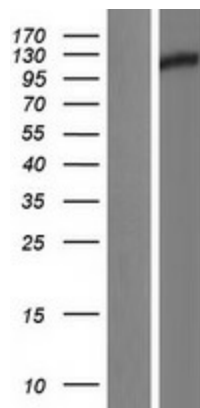
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<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_000170.3
RefSeq Size:	3783 bp
RefSeq ORF:	3063 bp
Locus ID:	2731
UniProt ID:	P23378
Cytogenetics:	9p24.1
Domains:	GDC-P
Protein Families:	Druggable Genome
Protein Pathways:	Glycine, serine and threonine metabolism, Metabolic pathways
MW:	112.73 kDa
Gene Summary:	Degradation of glycine is brought about by the glycine cleavage system, which is composed of four mitochondrial protein components: P protein (a pyridoxal phosphate-dependent glycine decarboxylase), H protein (a lipoic acid-containing protein), T protein (a tetrahydrofolate-requiring enzyme), and L protein (a lipoamide dehydrogenase). The protein encoded by this gene is the P protein, which binds to glycine and enables the methylamine group from glycine to be transferred to the T protein. Defects in this gene are a cause of nonketotic hyperglycinemia (NKH).[provided by RefSeq, Jan 2010]

Product images:



Circular map for RC211292



Western blot validation of overexpression lysate (Cat# [LY424873]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC211292 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).