

Product datasheet for **MR207435**

Gck (BC011139) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gck (BC011139) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Gck
Synonyms:	GLK, Gk, HK4, HKIV, HXKP, MODY2, NIDDM
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR207435 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCTGTGGATACTACAAGGAGGGGAGCCAGTCGTTGACTCTGGTAGAGCAGATCCTGGCAGAGTTCC
 AGCTGCAGGAGGAAGACCTGAAGAAGGTGATGAGCCGGATGCAGAAGGAGATGGACCGTGGCCTGAAGCT
 GGAGACCCATCAGGAGGCCAGTGTAAAGATGTTGCCACCTACGTGCGTTCACCCAGAAAGGCTCAGAA
 GTTGGAGACTTTCTCCTTAGACCTGGGAGGAACCAACTTCAGGGTGTGCTGGTAAAAGTGGGGGAGG
 GGGAGGCAGGACAGTGGAGCGTGAAGACGAAACACCAGATGTATTCCATCCCGAGGACGCCATGACGGG
 CACTGCGGAGATGCTCTTTGACTACATCTCTGAGTGCATCTCTGACTTCTGGACAAGCATCAGATGAAA
 CACAAGAACTACCCCTGGGCTCACCTTCTCCTTCCCTGTAAGGCACGAAGACATAGACAAGGGCATCC
 TGCTCAACTGGACCAAGGGCTTCAAGGCCTCCGGAGCAGAAGGGAACAACATCGTGGGACTTCTCCGAGA
 TGCTATCAAGAGGAGAGGGGACTTTGAGATGGATGTGGTGGCAATGGTGAATGACACGGTGGCCACAATG
 ATCTCCTGCTACTATGAAGACCGCAATGTGAGGTCGGCATGATTGTGGGCACCGGCTGCAACGCCTGCT
 ACATGGAGGAGATGCAGAATGTGGAGCTGGTGGAAAGCGATGAGGGGCGCATGTGTGTAAACACAGAGTG
 GGGCGCCTTCGGGAACCTCCGGTGAAGTGGACGAGTTTCTGCTGGAGTACGACCGGATGGTGGATGAGAGC
 TCAGTGAACCCCGGTGAGCAGCTGTACGAAAAGATCATTGGCGGAAAGTACATGGGCGAGCTGGTACGAC
 TTGTGCTGCTCAAGCTGGTAGAGGAGAATCTTCTGTTCCACGGAGAGGCCCTCAGAGCAGCTGCGCACACG
 TGGTGTCTTTGAGACCCGTTTGTGTGCGAGGTGGAGAGCGACTCTGGGGACCGAAGGCAGATCCTTAAC
 ATCCTGAGCACTCTGGGCCTTCGACCCTCTGTGCGGACTGCGACATTGTGCGCCGTGCCTGTGAAAGCG
 TGTCACCTGCGCGCCCCACATGTGCTCAGCAGGACTAGCGGGGGTCAAAATCGCATGCGCGAAAGCCG
 CAGTGAGGACGTGATGCGCATCACGGTGGGCGTGGATGGCTCCGTGTACAAGCTGCACCCGAGCTTCAAG
 GAGCGGTTTTACGCCAGTGTGCGCAGGCTGACACCCAAGTGCAGAAATCACCTTATTGAATCAGAGGAGG
 GCAGCGCAGGGGAGCCGACTGGTCTCTGCGGTGGCCTGCAAGAAGGCTTGCATGCTGGGCCAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR207435 protein sequence
 Red=Cloning site Green=Tags(s)

MAVDTRRGAQSLTLVEQILAEFQLQEEDLKKVMSRMQKEMDRGLKLETHQEASVKMLPTYVVRSTPEGSE
 VGDFLSLDLGGTNFRVMLVKVGEAGEAGQWSVKTKHQMYSIPEDAMTGAEMLFDYISECISDFLDKHQMK
 HKKLPLGFTTFSPVVRHEDIDKGILLNWTGKFKASGAEGNNIVGLLRDAIKRRGDFEMDVVAMVNDTVATM
 ISCYEDRQCEVGMIVGTGCNACYMEEMQNVELVEGDEGRMCVNTIEWGAFGNSGELDEFLLLEYDRMVDES
 SVNPGQQLYEKIIIGGKYMVELVRLVLLKLVEENLLFHGEASEQLRTRGAFETRFVSVQVESDSDGDRRQILN
 ILSTLGLRPSVADCDIVRRACESVSTRAAHMCSAGLAGVINRMRESRSEDVMRITVGVDSVYKHLHPSFK
 ERFHASVRRLLTPNCEITFIESEEGSGRGAALVSAVACKKACMLGQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: BC011139

ORF Size: 1395 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.

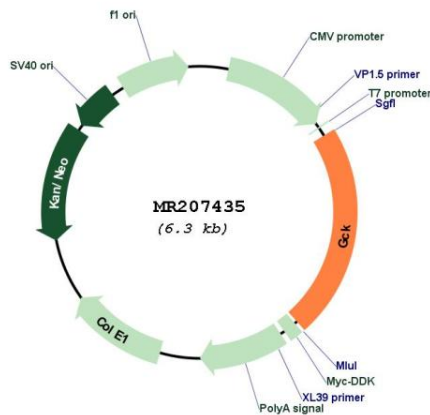
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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: [BC011139](#), [AAH11139](#)
RefSeq Size: 1798 bp
RefSeq ORF: 1397 bp
Locus ID: 103988
Cytogenetics: 11 3.88 cM
MW: 51.9 kDa

Gene Summary: Catalyzes the initial step in utilization of glucose by the beta-cell and liver at physiological glucose concentration. Pancreatic glucokinase plays an important role in modulating insulin secretion. Hepatic glucokinase helps to facilitate the uptake and conversion of glucose by acting as an insulin-sensitive determinant of hepatic glucose usage.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR207435