

Product datasheet for **MR227074**

Gck (NM_010292) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gck (NM_010292) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Gck
Synonyms:	Gk; GLK; Gls006; HK4; HKIV; Hlb62; HXKP; MODY2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>MR227074 representing NM_010292
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCTGGATGACAGAGCCAGGATGGAGGCCACCAAGAAGGAAAAGGTAGAGCAGATCCTGGCAGAGTTCC
 AGCTGCAGGAGGAAGACCTGAAGAAGGTGATGAGCCGGATGCAGAAGGAGATGGACCGTGGCCTGAAGCT
 GGAGACCCATCAGGAGGCCAGTGTAAAGATGTTGCCACCTACGTGCGTTCACCCAGAAAGGCTCAGAA
 GTTGGAGACTTTCTCCTTAGACCTGGGAGGAACCAACTTCAGGGTGTGCTGGTAAAAGTGGGGGAGG
 GGGAGGCAGGACAGTGGAGCGTGAAGACGAAACACCAGATGTATTCCATCCCGAGGACGCCATGACGGG
 CACTGCGGAGATGCTCTTTGACTACATCTCTGAGTGCATCTCTGACTTCTGGACAAGCATCAGATGAAA
 CACAAGAACTACCCCTGGGCTCACCTTCTCCTTCCCTGTAAGGCACGAAGACATAGACAAGGGCATCC
 TGCTCAACTGGACCAAGGGCTTCAAGGCCTCCGGAGCAGAAGGGAACAACATCGTGGACTTCTCCGAGA
 TGCTATCAAGAGGAGAGGGGACTTTGAGATGGATGTGGTGGCAATGGTGAATGACACGGTGGCCACAATG
 ATCTCCTGCTACTATGAAGACCCCAATGTGAGGTCGGCATGATTGTGGGCACCGCTGCAACGCCTGCT
 ACATGGAGGAGATGCAGAATGTGGAGCTGGTGGAAAGCGATGAGGGGCGCATGTGTGTCAACACAGAGTG
 GGGCGCCTTCGGGAACCTCCGGTGAAGTGGACGAGTTTCTCCTGGAGTACGACCGGATGGTGGATGAGAGC
 TCAGTGAACCCCGGTGAGCAGCTGTACGAAAAGATCATTGGCGGAAAGTACATGGGCGAGCTGGTACGAC
 TTGTGCTGCTCAAGCTGGTAGAGGAGAATCTTCTGTTCCACGGAGAGGCCCTCAGAGCAGCTGCGCACACG
 TGGTGTCTTTGAGACCCGTTTGTGTGCGAGGTGGAGAGCGACTCTGGGGACCGAAGGCAGATCCTTAAC
 ATCCTGAGCACTCTGGGCCTTCGACCCTCTGTGCGGACTGCGACATTGTGCGCCGTGCCTGTGAAAGCG
 TGTCCACTCGCGCCGCCACATGTGCTCAGCAGGACTAGCGGGGGTCATAAATCGCATGCGCGAAAGCCG
 CAGTGAGGACGTGATGCGCATCACGGTGGCGTGGATGGCTCCGTGTACAAGCTGCACCCGAGCTTCAAG
 GAGCGGTTTTACGCCAGTGTGCGCAGGCTGACACCCAAGTGCAGAAATCACCTTATTGAATCAGAGGAGG
 GCAGCGCAGGGGAGCCGACTGGTCTCTGCGGTGGCCTGCAAGAAGGCTTGCATGCTGGGCCAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR227074 representing NM_010292
 Red=Cloning site Green=Tags(s)

MLDDRARMEATKKEKVEQILAEFQLQEEDLKKVMSRMQKEMDRGLKLETHQEASVKMLPTYVVRSTPEGSE
 VGDFLSLDLGGTNFRVMLVKVGEAGEAGQWSVKTKHQMYSIPEDAMTGTAEMLFDYISECISDFLDKHQMK
 HKKLPLGFTTFSPVVRHEDIDKGILLNWTGKFKASGAEGNNIVGLLRDAIKRRGDFEMDVVAMVNDTVATM
 ISCYYEDRQCEVGMIVGTGCNACYMEEMQNVELVEGDEGRMCVNTIEWGAFGNSGELDEFLLLEYDRMVDES
 SVNPGQQLYEKIIGGKYMGEVRLVLLKLVENLLFHGEASEQLRTRGAFETRFVSQVESDSGDRRQILN
 ILSTLGLRPSVADCDIVRRACESVSTRAAHMCSAGLAGVINRMRESRSEDVMRITVGVDSVYKHLHPSFK
 ERFHASVRRLLTPNCEITFIESEEGSGRGAALVSAVACKKACMLGQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/ja1221_c01.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_010292

ORF Size: 1395 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.

RefSeq: [NM_010292.5](#), [NP_034422.2](#)

RefSeq Size: 2245 bp

RefSeq ORF: 1398 bp

Locus ID: 103988

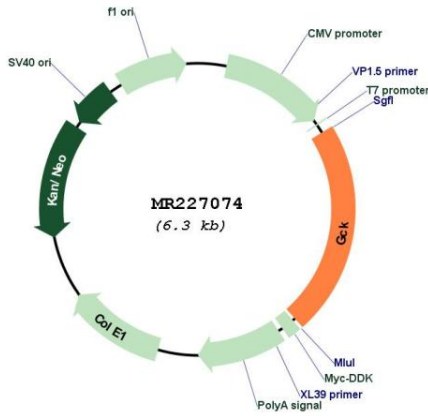
UniProt ID: [P52792](#)

Cytogenetics: 11 3.88 cM

MW: 52.5 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 MR227074