

Product datasheet for **RC214230**

GCKR (NM_001486) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GCKR (NM_001486) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GCKR
Synonyms:	FGQTL5; GGRP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC214230 representing NM_001486
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGCCAGGCACAAAACGGTTTCAACATGTCATTGAGACCCCGAGCCTGGCAAGTGGGAGTTGTCTGGGT
 ACGAGGCAGCTGTGCAATCACGGAGAAGTCAAACCCACTGACCCAGGATCTAGACAAAGCAGATGCTGA
 GAACATTGTTGACTGCTAGGGCAATGTGATGCTGAGATCTTCCAGGAGGAGGGCAAGCCCTGTCCACA
 TACCAGAGACTCTACAGCGGATCCATTCTGACCACCATGGTACAGGTGGCTGGGAAAAGTTCAGGAAGTGC
 TGAAGGAGCCAGATGGGGGGCTGGTTGTGCTGAGTGGAGGGGCACCTCTGGCCGGATGGCATTCTCAT
 GTCGGTGTCTTTAATCAGCTGATGAAAGGTCTGGGACAGAAACCTTTTACACCTACCTCATTGCAGGT
 GGTGACAGGTCTGTGGTGGCCTTAGGGAGGGGACAGAAGATAGTGCCTTGACGGGATTGAGGAACTGA
 AGAAGGTGGCTGCCGGGAAGAAGAGAGTATTGTCATTGGCATTCTGTGGGACTCTCTGCTCCCTTTGT
 GGCAGGCCAGATGGACTGCTGCATGAACAACACAGCTGTCTTCTGCCAGTCTGGTTGGCTTCAATCCA
 GTGAGCATGGCCAGAAATGACCCCAATTGAAGACTGGAGTCAACATTCGACAAGTAGCAGAGCGGATGC
 AGAAAAATGCAGGAGAAAACAGAAAGCTTTTGTGCTCAATCCTGCCATCGGGCCCGAGGGTCTCAGCGGCTC
 CTCCCGGATGAAAGGTGGAAGTGCCACCAAGATTCTGCTGAAAACCTGTTATTAGCAGCCATAAGACT
 GTGGACCAGGGCATTGCAGCATCTCAAAGATGCCTCCTGGAAATCTTGCGGACATTTGAGCGAGCTCATC
 AGGTGACCTACAGCCAAAGCCCCAAGATTGCCACCCTGATGAAGAGTGTGACGACCAGTCTGGAGAAGAA
 AGGCCACGTGTACCTGGTTGGCTGGCAGACCCTGGGCATCATTGCCATCATGGATGGAGTAGAGTGCATC
 CACACCTTTGGTGCTGATTTCCGAGATGTCCTGGCTTCTCATTGGTGATCACAGTGACATGTTTAAAC
 AGAAGGCTGAGCTACCAACCAGGGTCCCAGTTCACCTTCTCCAGGAGGACTTCTGACTCCATCCT
 TCCTCTCTCACGAAATCGATACTGTGGTCTTCAATTTTACCCTGGATGACAACCTCACGGAGGTGCAG
 ACTATAGTGGAGCAGGTGAAAGAGAAGACCAACCACATCCAGGCCCTGGCACACAGCACCCTGGGTGAGA
 CCTTGCCGATCCCTCTGAAGAAGCTCTTCCCTCCATCATCAGCATCACATGGCCACTGCTTTTCTTTGA
 ATATGAAGGGAATTCATCCAGAAGTTCACGCGTGAAGTAAAGCACCACATGTTGGACCTTCGGATTAGCACTCCA
 AGCTCTTCTGGCGGGCGCTGGCCATGCTGCAGCGGTTCTGACAGTCCAAGGCTCGATGCATCGAGAG
 CCTCTCCGAGCGATCCACTTCCCGCCACTGTCAGATGATATTCGGGCTGCTCCATCTCCTGCCAT
 GTCAGGTTGCACATGAGAAGGAACAGGTGATACCCATCGCCTTGCTGAGCCTCCTATTCGGGTGCTCGA
 TCACTGAGGCTCAGGCACACCTGGCTGCAGTCTCTTCTGTCTGTGAGGCTGTGAGGAGTGTCTTGTGTTG
 GCCAGGTGAGAAGCGCACTGCGGACCCCTCGAGATCCTAGAGCCTGACGTTTCAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC214230 representing NM_001486
 Red=Cloning site Green=Tags(s)

MPGTRKRFQHVIEIETPEPGKWELSGYEAAPITEKSNPLTQDLDKADAENIVRLLGQCDAEIFQEQQALST
 YQRLYSGSILTTMVQVAGKVQEVLEKPDGGLVLSGGTSGRMAFLMSVFNQLMKGLGQKPLYTYLIAG
 GDRSVVASREGTEDSALHGIEELKKVAAGKRVIVIGISVGLSAPFVAGQMDCCMNNTAVFLPVLVGFNP
 VSMARNDPIEDWSTFRQVAERMQKMQEKQKAFVLPNPAIGPEGLSGSSRMKGGSATKILLETLLAAHKT
 VDQGIAASQRCLLEILRTFERAHQVTYSQSPKIATLMKSVSTSLKKGHVYLVGWQTLGIIAIMDGVETI
 HTFGADFRDVRGFLIGDHSDFNQAELTNQGPQFTFSQEDFLTSILPSLTEIDTVVFIIFLDDNLTEVQ
 TIVEQVKEKTNHIQALAHSTVGQTLPIPLKLPFSIISITWPLLFFEYEGNFIQKFQRELSTKWVNTVS
 TGAHVLLGKILQNHMLDLRISNSKLFWRALAMLQRFSGQSKARCIESLLRAIHFPQLSDDIRAAPISCH
 VQVAHEKEQVIPIALLSLLFRCSITEAQAHLAAAPSVCEAVRSALAGPGQKRTADPLEILEPDVQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6200_e06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001486

ORF Size: 1875 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_001486.4](#)

RefSeq Size: 2197 bp

RefSeq ORF: 1878 bp

Locus ID: 2646

UniProt ID: [Q14397](#)

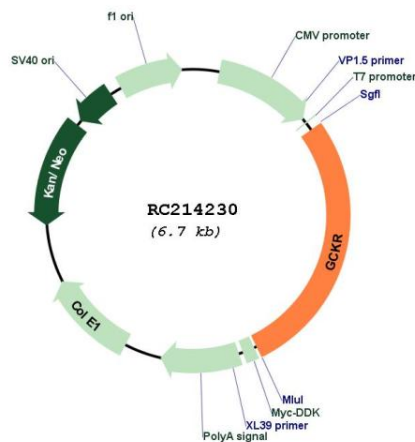
Cytogenetics: 2p23.3

Domains: SIS

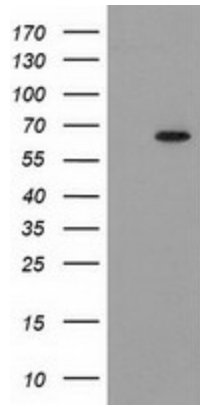
MW: 69.1 kDa

Gene Summary: This gene encodes a protein belonging to the GCKR subfamily of the SIS (Sugar ISomerase) family of proteins. The gene product is a regulatory protein that inhibits glucokinase in liver and pancreatic islet cells by binding non-covalently to form an inactive complex with the enzyme. This gene is considered a susceptibility gene candidate for a form of maturity-onset diabetes of the young (MODY). [provided by RefSeq, Jul 2008]

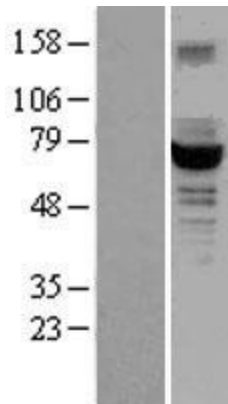
Product images:



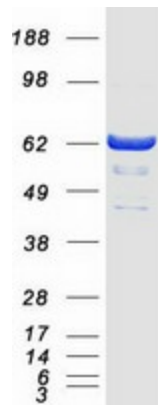
Circular map for RC214230



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY GCKR (Cat# RC214230, 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-GCKR antibody (Cat# [TA502152]). Positive lysates [LY400576] (100ug) and [LC400576] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400576]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214230 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GCKR protein (Cat# [TP314230]). The protein was produced from HEK293T cells transfected with GCKR cDNA clone (Cat# RC214230) using MegaTran 2.0 (Cat# [TT210002]).