

Product datasheet for **MG209160**

Gckr (NM_144909) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gckr (NM_144909) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Gckr
Synonyms:	GKRP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG209160 representing NM_144909
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCCAAGCACCAAGCGGTATCAGCATGTGATCGAGACCCTGAGCCTGGGGAATGGGAGTTGTCAGGGT
 ATGAAGCAGCTGTGCAATCACAGAGAAGTCCAACCCACTGACCCGGAACCTGGACAAAGCAGATGCAGA
 GAAAATTGTTCAACTGCTGGGGCAGTGTGATGCTGAGATATTCCAGGAGGAGGGGCAAATCATGCCACC
 TACCAGCGACTGTACAGTGTGAGTCTGACCACCATGTTGCAAGTGGCTGGCAAGGTCCAGGAAGTGC
 TGAAGGAGCCAGATGGGGCCTGGTGGTCTGAGTGGAGGGGGCACCTCTGGTCGATGGCATTCTTTAT
 GTCTGTCTTTCAACCAGCTGATGAAAGGTCTGGGACAAAAACCTCTTTACACATACCTCATTGCAGGG
 GGTGACAGGTCTGTTGTAGCCTCTCGGGAACGGACAGAAGATAGCGCCCTACACGGAATCGAGGAGCTGA
 AGAAGGTGGCTGTGGGAAAAAGAGAGTGGTCGTTATAGGCATTTCCGTGGGACTCTCTGCGCCCTTTGT
 GGCAGGCCAGATGGACTACTGCATGGATAACACAGCTGTCTTCTGCCGGTCTGGTTGGCTTCAATCCG
 GTGAGCATGGCCAGAAATGATCCATTGAAGACTGGAGATCGACATTCCGACAAGTGGCAGAGCGGATGC
 AGAAGATGCAGGAGAAACAGGAAGCCTTTGTGCTCAATCCTGCCATCGGGCCTGAGGGGCTCAGTGGCTC
 TTCCCGAATGAAAGGTGGAAGCGCCACCAAGATTCTACTGGAAACCTGCTACTAGCAGCCATAAGACT
 GTGGACCAGGGTGTGTGCTCTCAAAGATGCCTTCTGGAAATCCTGAGGACATTTGAGCGGGCTCATC
 AGGTAACCTACAGTCAAAGTTCAAAATGGCCACTCTGACGAAGCAAGTTGGCATCAGCCTGGAGAAAA
 AGGCCACGTGCACTTGGTTGGCTGGCAGACCCTCGGTATCATCGCCATTATGGATGGGGTAGAGTGTATC
 CACACTTTTGGTGCTGATTTCCGAGATATCCGTGGCTTTCTTATTTGGTGACCACAATGACATGTTAACC
 AGAAGGATGAGCTCAGCAATCAGGGTCCCAGTTCACCTTCTCTCAGGATGACTTCTGACTTCTGTTCT
 GCCATCCCTTACGGAAATGACACTGTGGTCTTCAATTTTACCCTGGATGATAACCTCGCAGAAAGTACAG
 GCCCTGGCAGAAAGGGTGAAGGAGAGTGGAAACATCCAGGCCCTGGTGCACAGCACAGTGGGGCAGT
 CCTTGGCAGTCTCTAAAGAAGCTCTTCCCTCGCTCATCAGCATCACATGGCCACTTCTTTTCTTCGA
 TTATGAAGGGAGCTACGTTCAGAAGTCCAGCGTGAAGTAAAGCACAAGTGGGTGTTGAATAACAAGGTT
 TCAGGACAGTCCAAGGCTCGCTGCATTGAGAGTCTTCTCAAGTATACATTTCCCTCAACCGCTGTCGA
 ATGATGTCGCGCGGCCCCATCTCTGCCATGTCCAGGTTGCCACGAGAAGGAAAAGGTGATCCCCAC
 AGCCTTGTGAGTCTCTACTCAGGTGCTCCATCACTGAGGCTAAGGAACGCCTGGCTGCAGCTTCTTCA
 GTCTGTGAGGTTGTTAGGAGCGCCCTCTCTGGCCAGGTCAGAAACGCAGCATCCAAGCCTTGGAGACC
 CTGTGGTCCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG209160 representing NM_144909
 Red=Cloning site Green=Tags(s)

MPSTKRYQHVIETPEPGEWELSGYEAAPITEKSNPLTRNLDKADA EKIVQLLGQCDAEIFQE EQIMPT
 YQRLYSESVLTTMLQVAGKVQEVLEKPDGGLVVL SGGTSGRMAFLMSVFNQLMKGLGQKPLYTYLIAG
 GDRSVVASRERTEDSALHGIEELKVAAGKRVVIGISVGLSAPFVAGQMDYCMDNTAVFLPVLVGFNP
 VSMARNDPIEDWRSTFRQVAERMQKMQEKQEFVLPNPAIGPEGLSGSSRMKGGSATKILLETLLAAHKT
 VDQGVVSSQRCLLEILRTFERAHQVTYSQSSKIATLTKQVGISLEKKGHVHLVWQTLGIIAIMDVECI
 HTFGADFRDIRGFLIGDHNDMFNQKDELSNQGPF TFSQDDFLTSVLPSTEIDTVVVFIFTLDDNLAEVQ
 ALAERVREKSWNIQALVHSTVGQSLPAPLKKLFP SLISITWPLLFFDYEGSYVQKFQRELSTKWLNTRF
 SGQSKARCIESLLQVIHFQPLSNDVRAAPI SCHVQVAHEKEKVIPTALLSLLLRC SITEAKERLAAASS
 VCEVRSALSGPGQKRSIQAFGDPVVP

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_144909

ORF Size: 1761 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_144909.2](#)

RefSeq Size: 2024 bp

RefSeq ORF: 1764 bp

Locus ID: 231103

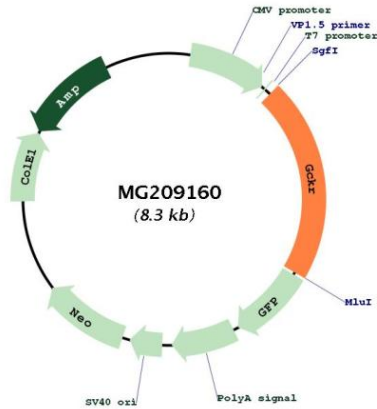
UniProt ID: [Q91X44](#)

Cytogenetics: 5 17.27 cM

Gene Summary:

Inhibits glucokinase (GCK) by forming an inactive complex with this enzyme. The affinity of GCKR for GCK is modulated by fructose metabolites: GCKR with bound fructose 6-phosphate has increased affinity for GCK, while GCKR with bound fructose 1-phosphate has strongly decreased affinity for GCK and does not inhibit GCK activity (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG209160