

Product datasheet for **RR216795**

Gck (NM_001270849) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gck (NM_001270849) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Gck
Synonyms:	GLK; GLUKA; RNGK2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>RR216795 representing NM_001270849
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCTATGGATACTACAAGGTGTGGAGCCAGTTGTTGACTCTGGGCACCAACAAATGCACGAATGCAT
 GCTCCCTGCTGTGCAGAGCGGGTACTACAACGGGCACATGAACCCTCGCTGCCGAACAGAGCAGGCGGC
 CGCCACACAGCTGCCACCTGCAGAGTCCAGCTACTCTTGAACATCATGTGGAGGGTCGAGCAGATCCT
 GGCAGAGTTCAGCTGCAGGAGGAAGACCTGAAGAAGGTGATGAGCCGGATGCAGAAGGAGATGGACCGT
 GGCCTGAGGCTGGAGACCCACGAGGAGAAGTCGGAGACTTTCTCTCCTTAGACCTGGGAGGAACCAACT
 CAGAGTGATGCTGGTCAAAGTGGGAGAGGGGGAGGCAGGGCAGTGGAGCGTGAAGACAAAACACCAGATG
 TACTCCATCCCGAGGACGCCATGACGGGCACTGCCGAGATGCTTTTGACTACATCTCTGAATGCATCT
 CTGACTTCCTTGACAAGCATCAGATGAAGCACAAGAACTGCCCTGGGCTTACCTTCTCCTTCCCTGT
 GAGGCACGAAGACCTAGACAAGGCATCCTCCTCAATTGGACCAAGGGCTTCAAGGCCTCTGGAGCAGAA
 GGAACAAACATCGTAGGACTTCTCCGAGATGCTATCAAGAGGAGAGGGGACTTTGAGATGGATGTGGTGG
 CAATGGTGAACGACACAGTGGCCACAATGATCTCCTGCTACTATGAAGACCGCCAATGTGAGGTCGGCAT
 GATTGTGGGCACTGGCTGCAATGCCTGTACATGGAGGAAATGCAGAATGTGGAGCTGGTGAAGGGGAT
 GAGGGACGCATGTGCGTCAACACGGAGTGGGGCGCCTTCGGGGACTCGGGCGAGCTGGATGAGTTCCTAC
 TGGAGTATGACCGGATGGTGGATGAAAGCTCAGCGAACCCCGGTGAGCAGCTGTACGAGAAGATCATCGG
 TGGGAAGTATATGGGCGAGCTGGTACGACTTGTGCTGCTTAAGCTGGTGGACGAGAACCTTCTGTCCAC
 GGAGAGCCTCGGAGCAGCTGCCACCGCTGGTGTCTTTGAGACCCGTTTCGTGTACAAGTGGAGAGCC
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 CGACATTTGTGCGCCGTGCTGTGAAAGGCTGTCCACTCGCGCCGCCATATGTGCTCCGACAGGACTAGT
 GGGGTCATAAATCGCATGCGCGAAAGCCGCACTGAGGACGTGATGCGCATCACTGTGGGCGTGGATGGCT
 CCGTGTACAAGCTGCACCCGAGCTTCAAGGAGCGGTTTACGCCAGTGTGCGCAGGCTGACACCCAACTG
 CGAAATCACCTTCATCGAATCAGAGGAGGGCAGCGGCAGGGGAGCCGCGCTGCTCTGCGGTGGCTGC
 AAGAAGGCTTGCATGCTGGCCAG

AG**GCGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RR216795 representing NM_001270849
 Red=Cloning site Green=Tags(s)

MAMDTTRCGAQLLTLGTNKTNACSLLCRAGTHNGHMNPRCRTEQAAATQLPTCRVQLLLNYHVEGRADP
 GRVPAAGGRPEEGDEPDAEAGDPWPEAGDPRGEVGDFLSLDLGGTNFRVMLVKVGEAGEQWSVKTKHQ
 YSIPEDAMTGTAEMLFDYISECISDFLDKHQMKHKKLPLGFTTFSPVVRHEDLDKGI LLNWTGKFKASGAE
 GNNIVGLLRDAIKRRGDFEMDVAMVNDTVATMISCYEDRQCEVGMIVGTGCNACYMEEMQNVELVEGD
 EGRMCVNTWGAFFGDSGELDEFLLLEYDRMVDESSANPGQQLYEKIIIGGKYMGEVRLVLLKLVNENLLFH
 GEASEQLRTRGAFETRFVSQVESDSGDRKQIHNILSTLGLRPSVTDCDIVRRACESVSTRAAHMCSAGLA
 GVINRMRESRSEDVMRITVGVDSVYKHLHPSFKERFHASVRRLLTPNCEITFIESEEGSGRGAALVSAVAC
 KKACMLAQ

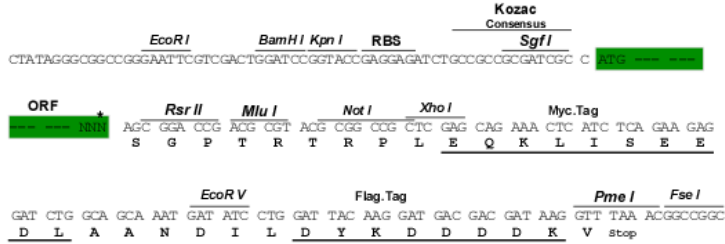
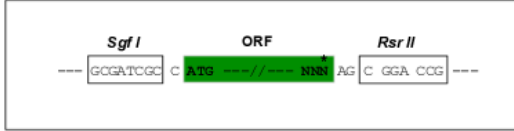
SGPTRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-RsrII

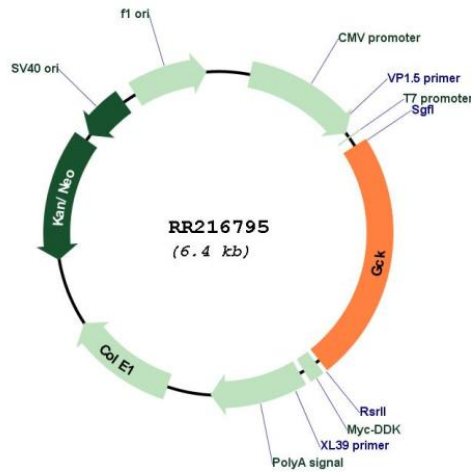
Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM_001270849

ORF Size: 1494 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_001270849.1](#), [NP_001257778.1](#)

RefSeq Size: 2442 bp

RefSeq ORF: 1497 bp

Locus ID: 24385

Cytogenetics: 14q21

MW: 54.8 kDa

Gene Summary: catalyzes the conversion of ATP and D-glucose to ADP and D-glucose 6-phosphate; may mediate glucosensing in glucose-inhibited and glucose-excited neurons [RGD, Feb 2006]