

Product datasheet for **RG232970**

Glycerol kinase (GK) (NM_001205019) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Glycerol kinase (GK) (NM_001205019) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GK
Synonyms:	GK1; GKD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RG232970 representing NM_001205019
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCAGCCTCAAAGAAGGCAGTTTTGGGGCCATTGGTGGGGCGGTGGACCAGGCACCCAGTTCGACGC
 GCTTTTTGGTTTTCAATTCAAAAACAGCTGAACTACTTAGTCATCATCAAGTAGAAAAACAAAGAGTT
 CCCAAGAGAAGGATGGGTGGAACAGGACCTAAGGAAATCTACATTCTGTCTATGAGTGTATAGAGAAA
 ACATGTGAGAACTTGGACAGCTCAATATTGATATTTCCAACATAAAAGCTATTGGTGTGAGCAACCAGA
 GGGAAACCACTGTAGTCTGGGACAAGATAACTGGAGAGCCTCTACAATGCTGTGGTGTGGCTTGTATCT
 AAGAACCAGTCTACCGTTGAGAGTCTTAGTAAAAGAATCCAGGAAATAATAACTTTGTCAAGTCCAAG
 ACAGGCCCTCCACTTAGCACTTACTTCAGTGCAGTGAACCTTCGTTGGCTCCTTGACAATGTGAGAAAAG
 TTCAAAGGCCGTTGAAGAAAAACGAGCTCTTTTTGGGACTATTGATTCATGGCTATTTGGAGTTTGAC
 AGGAGGAGTCAATGGAGGTGCCACTGTACAGATGTAACAAATGCAAGTAGGACTATGCTTTTCAACATT
 CATTCTTTGGAATGGGATAAACAACCTCTGCGAATTTTTTGGAAATCCAATGGAAATCTTCCAAATGTCC
 GGAGTTCTTCTGAGATCTATGGCCTAATGAAAATCTCTCATAGCGTGAAAGCTGGGGCCTTGAAGGTGT
 GCCAATATCTGGGTGTTTAGGGGACCAGTCTGCTGCATTGGTGGGACAAATGTGCTTCCAGATTGGACAA
 GCCAAAAATACGTATGGAACAGGATGTTTCTTACTATGTAATACAGGCCATAAGTGTGTATTTTCTGATC
 ATGGCCTTCTCACCACAGTGGCTTACAACTTGGCAGAGACAAACCAGTATATTATGCTTTGGAAGGTTC
 TGATGCTATAGCTGGTGTGTTATTTCGCTGGCTAAGAGACAATCTTGAATTATAAGACCTCAGAAGAA
 ATTGAAAACCTTGCTAAGAAGTAGTACTTCTTATGGCTGCTACTTCGTCAGCATTTCGGGGTTTAT
 ATGCACCTTATTGGGAGCCAGCGCAAGAGGGATAATCTGTGGACTCACTCAGTTCACCAATAAATGCCA
 TATTGCTTTTGCTGCATTAGAAGCTGTTTGTTCCAAACCTCGAGAGATTTTGGATGCCATGAATCGAGAC
 TGTGGAATCCACTCAGTCATTTGCAGGTAGATGGAGGAATGACCAGCAAAAAATCTTATGCAGCTAC
 AAGCAGACATTCTGTATATACCAGTAGTGAAGCCCTCAATGCCCGAAACCACTGCACTGGGTGCGGCTAT
 GGCGGCAGGGGCTGCAGAAGGAGTCGGCGTATGGAGTCTCGAACCAGGATTTGTCTGCCGTCACGATG
 GAGCGTTTGAACCTCAGATTAATGCGGAGGAAAGTGAATTCGTTATTCTACATGGAAGAAAGCTGTGA
 TGAAGTCAATGGGTTGGGTTACAACCTCAATCTCCAGAAAGTGGTGACCCTAGTATCTTCTGTAGTCTGCC
 CTTGGGCTTTTTATAGTGAGTAGCATGGTAATGTTAATCGGAGCAAGGTACATCTCAGGTATTCCA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG232970 representing NM_001205019
 Red=Cloning site Green=Tags(s)

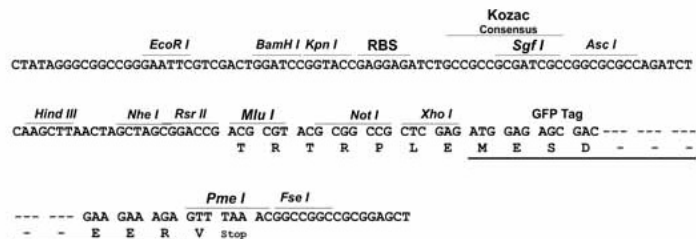
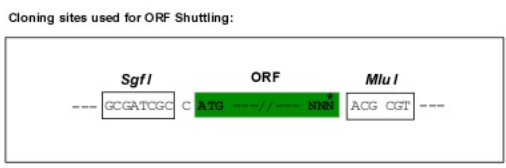
MAASKKAVLGPLVGAVDQGTSSSTRFLVFNKTAELL SHHQVEIKQEFREGWVEQDPKEILHSVYECIEK
 TCEKLGQLNIDISNIKAIGVSNQRETTVVWDKITGEPLYNVAVVWDLRTQSTVESLSKRIPGNMNFVKS
 TGLPLSTYFSAVKLRWLLDNVRKVQKAVEEKRALFGTIDSWLIWLSLGGVNGGVHCTDVTNASRTMLFNI
 HSLEWDKQLCEFFGIPMEILPNVRSSEIYGLMKISHSVKAGALEGVPIISGLGDQSAALVGQMCQFQIGQ
 AKNTYGTGCFLLCNTGHKCVFSDHGLLTTVAYKLRDVKPYYVALEGSVAIAGAVIRWLRDNLGIIKTSEE
 IEKLAKEVGTSYGCVFVPAFSGLYAPYWEPSARGIICGLTQFTNKCHIAFAALEAVCFQTREILDAMNRD
 CGIPLSHLQVDGGMTSNKILMQLQADILYIPVVKPSMPETTALGAAMAAGAAEGVGVWSLEPEDLSAVTM
 ERFEPQINAESEIRYSTWKKAVMKSMGWVTTQSPESGDPISIFCSLPLGFFIVSSMVMLIGARYISGIP

TRTRPLE - GFP Tag - V

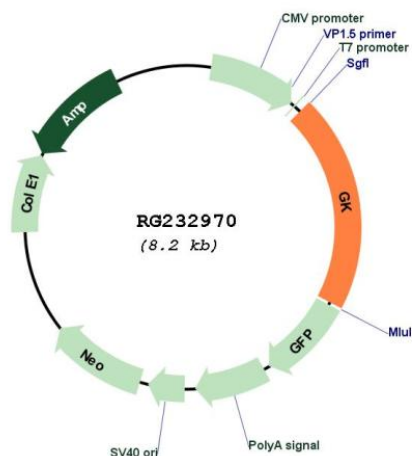
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN:	NM_001205019
ORF Size:	1677 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:	<ol style="list-style-type: none">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_001205019.2
RefSeq Size:	4590 bp
RefSeq ORF:	1680 bp
Locus ID:	2710
UniProt ID:	P32189
Cytogenetics:	Xp21.2
Protein Families:	Druggable Genome
Protein Pathways:	Glycerolipid metabolism, Metabolic pathways, PPAR signaling pathway
Gene Summary:	The protein encoded by this gene belongs to the FGGY kinase family. This protein is a key enzyme in the regulation of glycerol uptake and metabolism. It catalyzes the phosphorylation of glycerol by ATP, yielding ADP and glycerol-3-phosphate. Mutations in this gene are associated with glycerol kinase deficiency (GKD). Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Mar 2011]