

Product datasheet for **RG220661**

GK2 (NM_033214) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GK2 (NM_033214) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GK2
Synonyms:	GKP2; GKTA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG220661 representing NM_033214
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCAGCCCCAAGACAGCAGCTGTGGGGCCGTTGGTGGGAGCGGTGGTCCAGGGCACCAACTCCACTC
 GCTTTCTGGTTTTCAATTCAAAAACAGCGGAACACTTAGTCATCACAAAGTGAATTAACACAAGAGTT
 CCCAAAAGAAGGATGGGTGGAACAAGACCTAAAGAAATCTTCAGTCTGTCTACGAGTGTATAGCGAGA
 ACGTGTGAGAACTTGACGAAGTGAATATTGATATATCCAACATAAAAGCTGTTGGTGTGAGCAATCAGA
 GGGAAACCACTGTAATCTGGGACAAGTTAACAGGAGAGCCTCTACAATGCTGTGGTGTGGCTTGATCT
 AAGAACCAGACTACTGTTGAGGATCTTAGTAAAAAAATCCAGGAAATAGTAACTTCGTCAGTCTAAG
 ACAGGCCCTCCACTCAGCACTTACTTCAGTGCAGTAAACTTCGTTGGATGCTTGACAATGTGAGAAACG
 TCCAAAAGGCTGTTGAAGAAGGTAGAGCTCTTTTGGTACCATTGATTCATGGCTTATCTGGAGTTTGAC
 AGGAGGAGTTAATGGAGCGTGCATTGTACAGATGTAACAAATGCAAGTAGGACAATGCTTTTTAATATC
 CATTCTTTGGAATGGGATAAAGAGCTCTGTGACTTTTTGAAATTCCAATGGACCTCTTCCAAATGTCT
 TCAGTTCTTCTGAGATCTATGGCCTAATTAAGAACTGGAGCCCTGGAAGGTGTGCCAATATCTGGGTGTT
 GGGGGACCAATGTGCTGCATTAGTAGGACAAATGTGCTTCCAGGAGGGACAAGCCAAAAACCTATGGA
 ACAGGTTGCTTCTACTGTGTAATACGGGTGTAATGTGTGTTTTCTGAACATGGCCTTTTGACCACAG
 TAGCTTACAACTAGGCAGAGAGAAGCCAGCATATTATGCACTGGAAGGTTCTGTTGCTATAGCAGGTGC
 TGTTATTCGTTGGCTAAGAGACAATCTTGAATATAGAGACCTCAGGAGACATTGAAAGACTTGCTAAA
 GAAGTAGGAATCTTATGGCTGTTACTTTGCCAGCCTTTTCAGGGTTATATGCACCTTATTGGGAGC
 CCAGTCCAAGAGGATACTCTGTGGCCTCACTCAGTTTACCAATAAATGCATATTGCTTTTGCTGATT
 AGAAGCTGTTTGTTCCAAACCCGAGAGATTTTGAAGCCATGAACCGTGAAGTGTGGAATTCACCTTCGT
 CATTGTCAGGTAGATGGAGGAATGACCAACAACAAGTCTTATGCAGCTACAAGCAGATATTCTTCATA
 TTCCAGTAATAAAACCTTTATGCCTGAAACAACCTGCACTAGGAGCTGCCATGGCAGCAGGGGCTGCAGA
 GGGAGTAAGCGTTTGGAGCCTTGAACCCAGGCTTTGTGAGTCTCAGGATGGAACGATTGAAACCACAG
 ATCCAGGCCACAGAAAGTGAATTCGTTATGCCACATGGAAGAAAGCCGTAATGAAGTCAATGGGTTGGG
 TTACCAGTCAGTCTCCTGAAGGTGGTATCCTTCTATCTCTAGTCTGCCTTTGGGATTTTTATAGT
 GAGTAGCATGTAATGCTAATTGGAGCAAGATATATCTCGGGTGTGCCA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG220661 representing NM_033214
 Red=Cloning site Green=Tags(s)

MAAPKTAAVGPLVGAVVQGTNSTRFLVFNKTAELL SHHKVELTQEFPKEGWVEQDPKEILQSVYECIAR
 TCEKLDLNLIDISNIKAVGVSNQRETTVIWDKLTGEPLYNVAVVWLDLRTQTTVEDLSKKIPGNSNFVSKS
 TGLPLSTYFSAVKLRWMLDNVRNVQKAVEEGRALFGTIDSWLIWLSLGGVNGGVHCTDVTNASRTMLFNI
 HSLEWDKELCDFEIPMDLLPNVFSSEIYGLIKTGALEGVPI SGCLGDQCAALVQMCFQEQAKNTYG
 TGCFLCNTGRKCVFSEHLLTTVAYKLGREKPAYYALEGSVAIAGAVIRWLRDNLGIIETSGDIERLAK
 EVGTSYGCYFVPAFSGLYAPYWEPSARGILCGLTQFTNKCHIAFAALEAVCFQTRILEAMNRDCGIPLR
 HLQVDGGMTNKNVLMQLQADILHIPVIKPFMPETTALGAAMAAGAAEGVSVWSLEPQALSVLRMERFEPQ
 IQATESEIRYATWKKAVMKSMGWVTSQSPEGGDPSIFSSLPLGFFIVSSMVMLIGARYISGVP

TRTRPLE – GFP Tag – V

Restriction Sites:

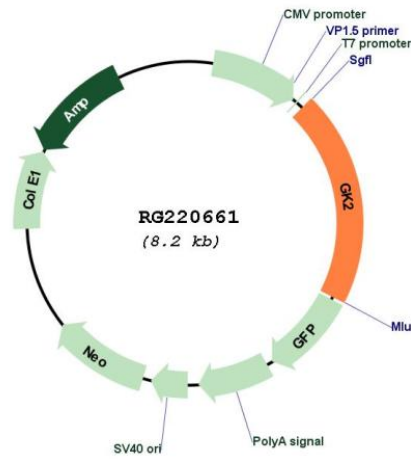
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN:	NM_033214
ORF Size:	1659 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_033214.3
RefSeq Size:	1899 bp
RefSeq ORF:	1662 bp
Locus ID:	2712
UniProt ID:	Q14410
Cytogenetics:	4q21.21
Domains:	FGGY
Protein Families:	Druggable Genome
Protein Pathways:	Glycerolipid metabolism, Metabolic pathways, PPAR signaling pathway
Gene Summary:	Key enzyme in the regulation of glycerol uptake and metabolism.[UniProtKB/Swiss-Prot Function]