

## Product datasheet for **RC220661**

### **GK2 (NM\_033214) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	GK2 (NM_033214) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GK2
Synonyms:	GKP2; GKTA
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**ORF Nucleotide Sequence:**

>RC220661 representing NM\_033214  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCAGCCCCAAGACAGCAGCTGTGGGGCCGTGGTGGGAGCGGTGGTCCAGGGCACCACTCCACTC  
 GCTTTCTGGTTTTCAATTCAAAAACAGCGGAACACTTAGTCATCACAAGTGAATTAACACAAGAGTT  
 CCCAAAAGAAGGATGGGTGGAACAAGACCCTAAAGAAATCTTCAGTCTGTCTACGAGTGTATAGCGAGA  
 ACGTGTGAGAACTTGACGAAGTGAATATTGATATATCCAACATAAAAGCTGTTGGTGTGAGCAATCAGA  
 GGGAAACCACTGTAATCTGGGACAAGTTAACAGGAGAGCCTCTACAATGCTGTGGTGTGGCTTGTATCT  
 AAGAACCAGACTACTGTTGAGGATCTTAGTAAAAAATCCAGGAAATAGTAACTTCGTCAGTCTAAG  
 ACAGGCCCTCCACTCAGCACTTACTTCAGTGCAGTAAACTTCGTTGGATGCTTGACAATGTGAGAAACG  
 TCCAAAAGGCTGTTGAAGAAGGTAGAGCTCTTTTGGTACCATTGATTTCATGGCTTATCTGGAGTTTGC  
 AGGAGGAGTTAATGGAGCGTGCATTGTACAGATGTAACAAATGCAAGTAGGACAATGCTTTTTAATATC  
 CATTCTTTGGAATGGGATAAAGAGCTCTGTGACTTTTTGAAATTCCAATGGACCTCTTCCAAATGTCT  
 TCAGTTCTTCTGAGATCTATGGCCTAATAAAACCTGGAGCCCTGGAAGGTGTGCCAATATCTGGGTGTT  
 GGGGGACCAATGTGCTGCATTAGTAGGACAAATGTGCTTCCAGGAGGGACAAGCCAAAAACCTATGGA  
 ACAGGTTGCTTCTACTGTGTAATACGGGTGTAATGTGTGTTTTCTGAACATGGCCTTTTGACCACAG  
 TAGCTTACAACTAGGCAGAGAGAAGCCAGCATATTATGCACTGGAAGGTTCTGTTGCTATAGCAGGTGC  
 TGTTATTCGTTGGCTAAGAGACAATCTTGAATATAGAGACCTCAGGAGACATTGAAAGACTTGCTAAA  
 GAAGTAGGAATCTTATGGCTGTTACTTTGCCAGCCTTTTCAGGGTTATATGCACCTTATTGGGAGC  
 CCAGTGCAGAGGATACTCTGTGGCCTCACTCAGTTTACCAATAAATGCATATTGCTTTTGTGACTT  
 AGAAGCTGTTTGTTCCAAACCCGAGAGATTTTGAAGCCATGAACCGTACTGTGGAATTCACCTTCGT  
 CATTGTCAGGTAGATGGAGGAATGACCAACAACAAGTCTTATGCAGCTACAAGCAGATATTCTTCATA  
 TTCCAGTAATAAAACCTTTATGCCTGAAACAACCTGCACTAGGAGCTGCCATGGCAGCAGGGGCTGCAGA  
 GGGAGTAAGCGTTTGGAGCCTTGAACCCAGGCTTTGTGAGTCTCAGGATGGAACGATTGAAACCACAG  
 ATCCAGGCCACAGAAAGTAAATTCGTTATGCCACATGGAAGAAAGCCGTAATGAAGTCAATGGGTTGGG  
 TTACCAGTCAGTCTCCTGAAGGTGGTATCCTTCTATCTCTAGTCTGCCTTTGGGATTTTTATAGT  
 GAGTAGCATGGAATGCTAATTGGAGCAAGATATATCTCGGGTGTGCCA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC220661 representing NM\_033214  
 Red=Cloning site Green=Tags(s)

MAAPKTAAVGPLVGAVVQGTNSTRFLVFNSKTAELLSHHKVELTQEFPKEGWVEQDPKEILQSVYECIAR  
 TCEKLDLNLIDISNIKAVGVSNORETTVIWDKLTGEPLYNNAVWLDLRTQTTVEDLSKKIPGNSNFVKS  
 TGLPLSTYFSAVKLRWMLDNVRNVQKAVEEGRALFGTIDSWLIWSLTGGVNGGVHCTDVTNASRMLFNI  
 HSLEWDKELCDFEIPMDLLPNVFSSEIYGLIKTGALEGVPIISGCLGDQCAALVGQMFQEGQAKNTYG  
 TGCFLCNTGRKCVFSEHGLLTTVAYKLGREKPAYALEGSVAIAGAVIRWLRDNLGIETSGDIERLAK  
 EVGTSYGCYFVPAFSGLYAPYWEPSARGILCGLTQFTNKCHIAFAALEAVCFQTRILEAMNRDCGIPLR  
 HLQVDGGMTNNKVLMLQADILHIPVIKPFMPETTALGAAMAAGAAEGVSVWSLEPQALSVLRMERFEPQ  
 IQATESEIRYATWKKAVMKSMGWVTSQSPEGDPISIFSSLPLGFFIVSSMVMLIGARYISGVP

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

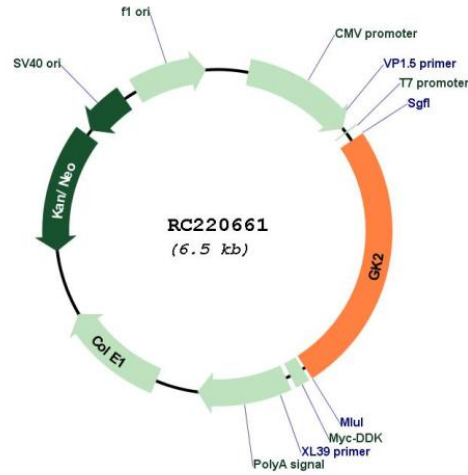
Cloning Scheme:

Cloning sites used for ORF Shutting:



\* The last codon before the Stop codon of the ORF

Plasmid Map:



<b>ACCN:</b>	NM_033214
<b>ORF Size:</b>	1659 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_033214.3</a>
<b>RefSeq Size:</b>	1899 bp
<b>RefSeq ORF:</b>	1662 bp
<b>Locus ID:</b>	2712
<b>UniProt ID:</b>	<a href="#">Q14410</a>
<b>Cytogenetics:</b>	4q21.21
<b>Domains:</b>	FGGY
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Glycerolipid metabolism, Metabolic pathways, PPAR signaling pathway
<b>MW:</b>	61 kDa
<b>Gene Summary:</b>	Key enzyme in the regulation of glycerol uptake and metabolism.[UniProtKB/Swiss-Prot Function]