

Product datasheet for **RG232083**

Guanylate kinase (GUK1) (NM_001242839) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Guanylate kinase (GUK1) (NM_001242839) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: GUK1
Synonyms: GMK
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG232083 representing NM_001242839
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTCGGGCCAGGCCTGTGGTCTGAGCGGGCCTTCGGGAGCTGGGAAGAGCACCCCTGCTGAAGAGGC
TGCTCCAGGAGCACAGCGGCATCTTTGGCTTCAGCGTGTCCCATACCACGAGGAACCCGAGGCCCGCGA
GGAGAACGGCAAAGATTACTACTTTGTAACCAGGGAGGTGATGCAGCGTGACATAGCAGCCGGCGACTTC
ATCGAGCATGCCGAGTTCTCGGGAACCTGTATGGCACGAGCAAGGTGGCGGTGCAGGCCGTGCAGGCCA
TGAAACCGCATCTGTGTGCTGGACCTGGACCTGCAGGGTGTGCGGAACATCAAGGCCACCGATCTGCGGCC
CATCTACATCTCTGTGCAGCCGCTTCACTGCAGGTGCTGGAGCAGCGGCTGCGGCAGCGCAACTGAA
ACCGAGGAGAGCCTGGTGAAGCGGCTGGCTGCTGCCAGGCCGACATGGAGAGCAGCAAGGAGCCCGGCC
TGTTTGATGTGGTCATCATTAAACGACAGCCTGGACCAGGCCTACGCAGAGCTGAAGGAGGCGCTCTCTGA
GGAAATCAAGAAAGCTCAAAGGACCGGCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG232083 representing NM_001242839
Red=Cloning site Green=Tags(s)

MSGPRPVVLSGPGSAGKSTLLKRLQEHSGIFGFSVSHTRNPRPGEENGKDYFVTREVMQRDIAAGDF
IEHAEFSGNLYGTSKVAVQAVQAMNRCVLDVLDLQGVNRNIKATDLRPIYISVQPPSLHVLEQLRQRNTE
TEESLVKRLAAAQADMESSKEPGLFDVVIINDSLDQAYAEALKEALSEEIKKAQRTGA

TRTRPLE - GFP Tag - V

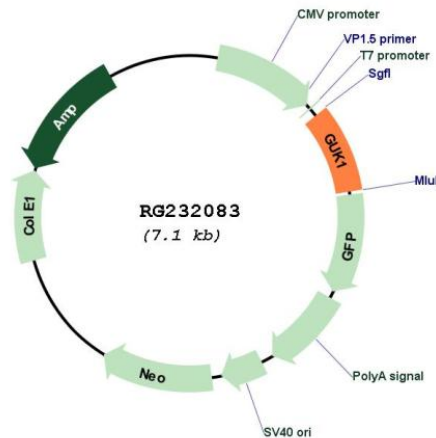
Restriction Sites: SgfI-MluI



Cloning Scheme:



Plasmid Map:



ACCN: NM_001242839

ORF Size: 591 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_001242839.1](#), [NP_001229768.1](#)

RefSeq Size: 930 bp

RefSeq ORF: 594 bp

Locus ID: 2987

UniProt ID: [Q16774](#)

Cytogenetics: 1q42.13

Protein Families: Druggable Genome

Protein Pathways: Metabolic pathways, Purine metabolism

Gene Summary: The protein encoded by this gene is an enzyme that catalyzes the transfer of a phosphate group from ATP to guanosine monophosphate (GMP) to form guanosine diphosphate (GDP). The encoded protein is thought to be a good target for cancer chemotherapy. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jun 2011]