

## Product datasheet for **RG202510**

### Guanylate kinase (GUK1) (NM\_000858) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Guanylate kinase (GUK1) (NM\_000858) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** Guanylate kinase  
**Synonyms:** GMK  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG202510 representing NM\_000858  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCGGGCCAGGCCTGTGGTCTGAGCGGGCCTTCGGGAGCTGGGAAGAGCACCCCTGCTGAAGAGGC  
TGCTCCAGGAGCACAGCGGCATCTTTGGCTTCAGCGTGTCCCATACCACGAGGAACCCGAGGCCCGCGA  
GGAGAACGGCAAAGATTACTACTTTGTAACCAGGGAGGTGATGCAGCGTGACATAGCAGCCGGCGACTTC  
ATCGAGCATGCCGAGTTCTCGGGAACCTGTATGGCACGAGCAAGGTGGCGGTGCAGGCCGTGCAGGCCA  
TGAAACCGCATCTGTGTGCTGGACCTGGACCTGCAGGGTGTGCGGAACATCAAGGCCACCGATCTGCGGCC  
CATCTACATCTCTGTGCAGCCGCTTCACTGCAGGTGCTGGAGCAGCGGCTGCGGCAGCGCAACTGAA  
ACCGAGGAGAGCCTGGTGAAGCGGCTGGCTGCTGCCAGGCCGACATGGAGAGCAGCAAGGAGCCCGGCC  
TGTTTGATGTGGTCATCATTAAACGACAGCCTGGACCAGGCCTACGCAGAGCTGAAGGAGGCGCTCTCTGA  
GGAAATCAAGAAAGCTCAAAGGACCGGCC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG202510 representing NM\_000858  
Red=Cloning site Green=Tags(s)

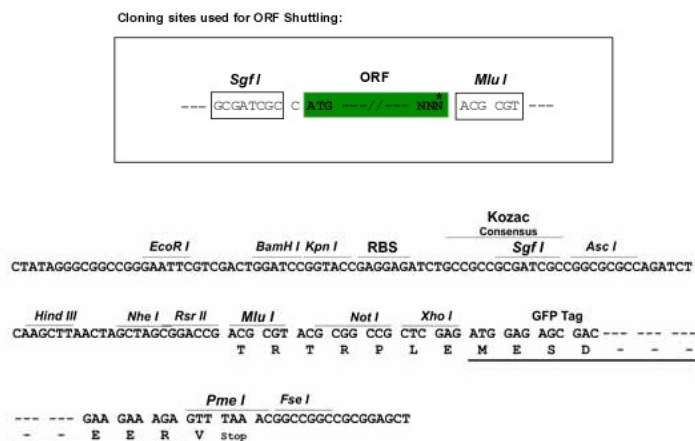
MSGPRPVVLSGSPSGAGKSTLLKRLQEHSGIFGFSVSHTRNPRPGEENGKDYFVTREVMQRDIAAGDF  
IEHAEFSGNLYGTSKVAVQAVQAMNRCVLDVDLQGVNRNIKATDLRPIYISVQPPSLHVLEQLRQRNTE  
TEESLVKRLAAAQADMESSKEPGLFDVVIINDSLDQAYAEALKEALSEEIKKAQRTGA

**TRTRPLE** - GFP Tag - V

**Restriction Sites:** SgfI-MluI



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**Cloning Scheme:**


**ACCN:** NM\_000858

**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\\_000858.7](#)

**RefSeq Size:** 1098 bp

**RefSeq ORF:** 594 bp

**Locus ID:** 2987

**UniProt ID:** [Q16774](#)

**Cytogenetics:** 1q42.13

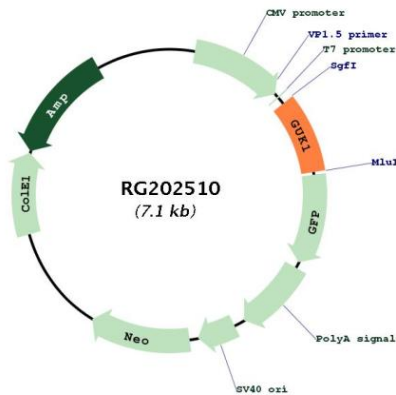
**Domains:** Guanylate\_kin, GuKc

**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]

**Product images:**



Circular map for RG202510