

## Product datasheet for **RG228149**

### Guanylate kinase (GUK1) (NM\_001159390) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Guanylate kinase (GUK1) (NM_001159390) 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:	>RG228149 representing NM_001159390 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCTGCGGGCGCCGCTGGCCGGGCTGGCTGCGGCCGCCCTGGGCCGGGCCCCACCGACGGCATGTCCG  
GCCCCAGGCTGTGGTGTGAGCGGGCCTTCGGGAGCTGGGAAGAGCACCCCTGCTGAAGAGGCTGCTCCA  
GGAGCACAGCGGCATCTTTGGCTTCAGCGTGTCCCATACCACGAGGAACCCGAGGCCCGGCGAGGAGAAC  
GGCAAAGATTACTACTTTGTAACCAGGGAGGTGATGCAGCGTGACATAGCAGCCGGCGACTTCATCGAGC  
ATGCCGAGTTCTCGGGAACTGTATGGCAGGCAAGGTGGCGGTGCAGCCGTGCAGGCCATGAACCG  
CATCTGTGTGCTGGACGTGGACCTGCAGGGTGTGCGGAACATCAAGGCCACCGATCTGCGGCCATCTAC  
ATCTCTGTGCAGCCGCTTCACTGCACGTGCTGGAGCAGCGGCTGCGGCAGCGCAACTGAAACCAGG  
AGAGCCTGGTGAAGCGGCTGGCTGCTGCCAGGCCGACATGGAGAGCAGCAAGGAGCCCGGCTGTTTGA  
TGTGGTCATTAACGACAGCCTGGACCAGGCCACGCAGAGCTGAAGGAGGCGCTCTCTGAGGAAATC  
AAGAAAGCTCAAAGGACCGCGCC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG228149 representing NM\_001159390  
 Red=Cloning site Green=Tags(s)

MLRRPLAGLAAAALGRAPPDGMSGPRPVVLSGSPGAGKSTLLKRLLEHSGIFGFSVSHHTTRNPRPGEEN  
 GKDYFFVTREVMQRDIAAGDFIEHAIEFSGNLYGTSKVAVQAVQAMNRCVLDVDLQGVNRNIKATDLRPIY  
 ISVQPPSLHVLEQRLRQRNTEETESLVKRLAAAQADMESKEPGLFDVVIINDSLDQAYALKEALSEEI  
 KKAQRTGA

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001159390

**ORF Size:** 654 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\\_001159390.1](#), [NP\\_001152862.1](#)

**RefSeq Size:** 990 bp

**RefSeq ORF:** 657 bp

**Locus ID:** 2987

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

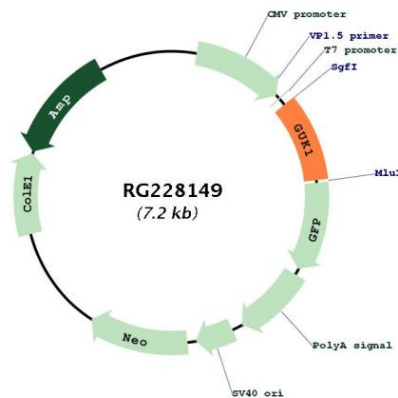
**Cytogenetics:** 1q42.13

**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]

### Product images:



Circular map for RG228149