

## Product datasheet for RC228754

### Guanylate kinase (GUK1) (NM\_001159391) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Guanylate kinase (GUK1) (NM\_001159391) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Guanylate kinase  
**Synonyms:** GMK  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC228754 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCGGGCCAGGCCTGTGGTCTGAGCGGCCCTCGGGAGCTGGGAAGAGCACCCCTGCTGAAGAGGC  
TGCTCCAGGAGCACAGCGGCATCTTTGGCTTCAGCGTGTCCCATACCACGAGGAACCCGAGGCCCGCGA  
GGAGAACGGCAAAGATTACTACTTTGTAACCAGGGAGGTGATGCAGCGTGACATAGCAGCCGGCAGCTTC  
ATCGAGCATGCCGAGTTCTCGGGAACCTGTATGGCACGACGAAGGTGGCGGTGCAGGCCGTGCAGGCCA  
TGAAACCGCATCTGTGTGCTGGACGTGGACCTGCAGGGTGTGCGGAACATCAAGGCCACCGATCTGCGGCC  
CATCTACATCTCTGTGCAGCCGCTTCACTGCAGGTGCTGGAGCAGCGGCTGCGGCAGCGCAACTGAA  
ACCGAGGAGAGCCTGGTGAAGCGGCTGGCTGCTGCCAGGCCGACATGGAGAGCAGCAAGGAGCCCGGCC  
TGTTTGATGTGGTCATCATTAAACGACAGCCTGGACCAGGCCTACGCAGAGCTGAAGGAGGCGCTCTCTGA  
GGAAATCAAGAAAGCTCAAAGGACCGGCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC228754 protein sequence  
 Red=Cloning site Green=Tags(s)

MSGPRPVVLSGSPGAGKSTLLKRLQEHSGIFGFSVSHTRNPRPGEENGKDYFVTREVMQRDIAAGDF  
IEHAEFSGNLYGTSKVAVQAVQAMNRCVLDVLDLQGVNRNIKATDLRPIYISVQPPSLHVLEQRLRQRNTE  
TEESLVKRLAAAQADMESKEPGLFDVVIINDSLDQAYAEALKEALSEEIKKAQRTGA

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV



**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6076\\_f03.zip](https://cdn.origene.com/chromatograms/mk6076_f03.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001159391

**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\\_001159391.2](#)

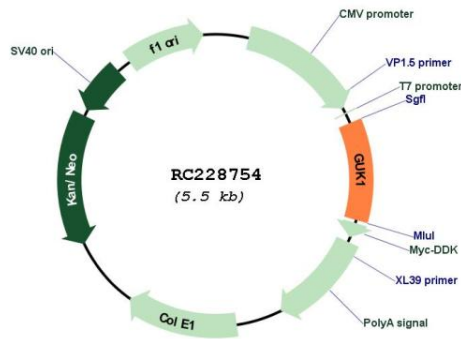
**RefSeq Size:** 904 bp

**RefSeq ORF:** 594 bp

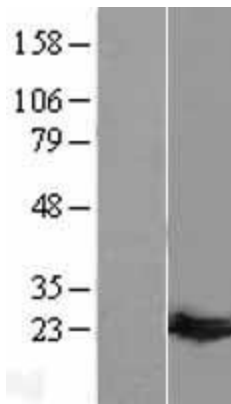
**Locus ID:** 2987

**UniProt ID:** [Q16774](#)  
**Cytogenetics:** 1q42.13  
**Protein Families:** Druggable Genome  
**Protein Pathways:** Metabolic pathways, Purine metabolism  
**MW:** 21.7 kDa  
**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 RC228754



Western blot validation of overexpression lysate (Cat# [LY431782]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC228754 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).