

## **Product datasheet for SC327389**

#### OriGene Technologies, Inc.

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# Guanylate kinase (GUK1) (NM\_001159391) Human Untagged Clone

### **Product data:**

**Product Type:** Expression Plasmids

Product Name: Guanylate kinase (GUK1) (NM 001159391) Human Untagged Clone

Tag: Tag Free
Symbol: GUK1
Synonyms: GMK

Mammalian Cell Neomycin

Selection:

Vector:pCMV6-Entry (PS100001)E. coli Selection:Kanamycin (25 ug/mL)

Fully Sequenced ORF: >SC327389 representing NM\_001159391.

Blue=Insert sequence Red=Cloning site Green=Tag(s)

GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC

ATGTCGGGCCCAGGCCTGTGGTGCTGAGCGGGCCTTCGGGAGCTGGGAAGAGCACCCTGCTGAAGAGG CTGCTCCAGGAGCACAGCGGCATCTTTGGCTTCAGCGTGTCCCATACCACGAGGAACCCGAGGCCCGGC GAGGAGAACGGCAAAGATTACTACTTTGTAACCAGGGAGGTGATGCAGCGTGACATAGCAGCCGGCGAC TTCATCGAGCATGCCGAGTTCTCGGGGAACCTGTATGGCACGAGCAAGGTGGCGGTGCAGGCCGTGCAG GCCATGAACCGCATCTGTGTGCTGGACGTGGACCTGCAGGGTGTGCGGAACATCAAGGCCACCGATCTG CGGCCCATCTACATCTCTGTGCAGCCGCCTTCACTGCACGTGCTGGAGCAGCGGCTGCGGCAGCCAAC ACTGAAACCGAGGAGAGCCTGGTGAAGCGGCTGCTGCCCAGGCCGACATGGAGAGCAGCAAGGAG CCCGGCCTGTTTGATGTGGTCATCATTAACGACAGCCTGGACCAGGCCTACGCAGAGCTGAAGGAGGCG

CTCTCTGAGGAAATCAAGAAAGCTCAAAGGACCGGCGCC<mark>TGA</mark>

**ACGCGTACGCGGCCGCTC**GAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT

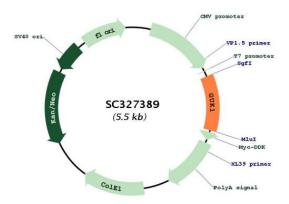
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC

**Restriction Sites:** Sgfl-Mlul





#### Plasmid Map:



**ACCN:** NM\_001159391

**Insert Size:** 594 bp

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a

point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative

RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning

into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

**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 001159391.1

 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]

Transcript Variant: This variant (3) differs in the 5' UTR and coding sequence and contains an alternate coding exon in the 3' end compared to variant 5, that causes a frameshift. The resulting isoform (b) is shorter at the N-terminus and has a shorter and distinct C-terminus

compared to isoform c. Variants 2, 3, and 4 all encode the same isoform.