

Product datasheet for **RC202510**

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: Myc-DDK
Symbol: GUK1
Synonyms: GMK
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC202510 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTCGGGCCAGGCCTGTGGTCTGAGCGGGCCTTCGGGAGCTGGGAAGAGCACCCCTGCTGAAGAGGC
TGCTCCAGGAGCACAGCGGCATCTTTGGCTTCAGCGTGTCCCATACCACGAGGAACCCGAGGCCCGCGA
GGAGAACGGCAAAGATTACTACTTTGTAACCAGGGAGGTGATGCAGCGTGACATAGCAGCCGGCGACTTC
ATCGAGCATGCCGAGTTCTCGGGAACCTGTATGGCACGAGCAAGGTGGCGGTGCAGGCCGTGCAGGCCA
TGAACCGCATCTGTGTGCTGGACGTGGACCTGCAGGGTGTGCGGAACATCAAGGCCACCGATCTGCGGCC
CATCTACATCTCTGTGCAGCCGCTTCACTGCAGGTGCTGGAGCAGCGGCTGCGGCAGCGCAACTGAA
ACCGAGGAGAGCCTGGTGAAGCGGCTGGCTGCTGCCAGGCCGACATGGAGAGCAGCAAGGAGCCCGGCC
TGTTTGATGTGGTCATCATTAAACGACAGCCTGGACCAGGCCTACGCAGAGCTGAAGGAGGCGCTCTCTGA
GGAAATCAAGAAAGCTCAAAGGACCGGCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC202510 protein sequence
Red=Cloning site Green=Tags(s)

MSGPRPVVLSGSPGAGKSTLLKRLQEHSGIFGFSVSHTRNPRPGEENGKDYFVTREVMQRDIAAGDF
IEHAEFSGNLYGTSKVAVQAVQAMNRCVLDVLDLQGVNRNIKATDLRPIYISVQPPSLHVLEQRLRQRNTE
TEESLVKRLAAAQADMESKEPGLFDVVIINDSLDQAYAEALKEALSEEIKKAQRTGA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

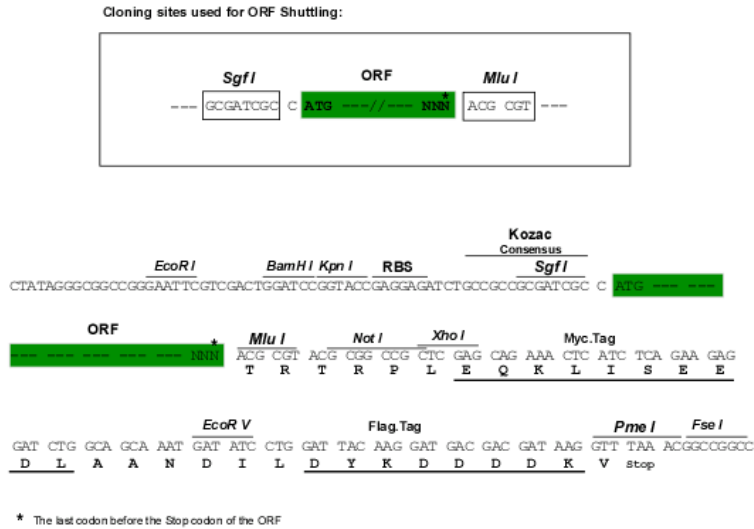


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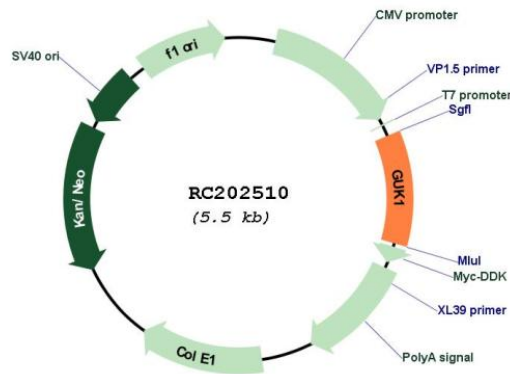
Chromatograms: https://cdn.origene.com/chromatograms/mk6076_f03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



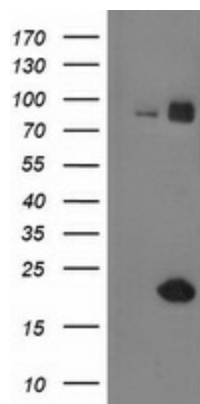
ACCN: NM_000858

ORF Size: 591 bp

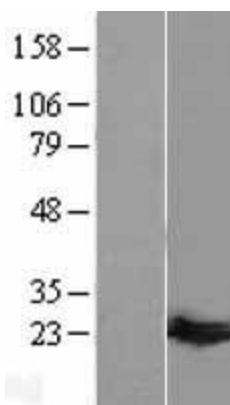
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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:	<ol style="list-style-type: none">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:	1155 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
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]

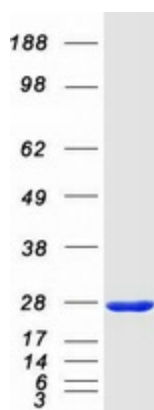
Product images:



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY GUK1 (Cat# RC202510, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-GUK1 (Cat# [TA502692]). Positive lysates [LY400303] (100ug) and [LC400303] (20ug) can be purchased separately from OriGene.



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]).



Coomassie blue staining of purified GUK1 protein (Cat# [TP302510]). The protein was produced from HEK293T cells transfected with GUK1 cDNA clone (Cat# RC202510) using MegaTran 2.0 (Cat# [TT210002]).