

## Product datasheet for **RC206265**

### Glutaminase (GLS) (NM\_014905) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Glutaminase (GLS) (NM_014905) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GLS
Synonyms:	AAD20; CASGID; DEE71; EIEE71; GAC; GAM; GDPAG; GLS1; KGA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC206265 representing NM\_014905  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGATGCGGCTGCGAGGCTCGGGATGCTGCGGGACCTGCTCCTGCGGTGCCCCCGCGGCTGAGCGCGA  
 CTCTGCGGCGGGCACAGCCCTTGGTCACCCTGTGCCGGCGTCCCCGAGGCGGGGACGGCCGGCCGCGG  
 CCCGGCTGCCCGCGCGACTCCACCCGTGGTGGGGCGGGGCGGCTGGCCGGCGGAGCCCTCGCGCGG  
 GGCTGTCCAGCTCTCCTTCGGAGATCTTGACAGGAGCTGGGAAGGGGAGCACGCATCCGCAGCCCGGG  
 TGTGCCACCCGCTGCCCGGGCGGCCGCCCAAGGACGGCCCCGGGAGACGGACGCGTTTGGCAA  
 CAGCGAGGGCAAAGAGCTGGTGGCTCAGGTGAAAATAAAATAAAACAGGGTCTGTTACCTAGCTTGAA  
 GATTTGCTGTTCTATAACAATTGCTGAAGGACAAGAGAAAATACCTGTTCAAAATTTATTACAGCACTCA  
 AATCTACAGGATTGCGAACGTCTGATCCCAGGTTGAAAGAGTGTATGGATATGTTAAGATTAACCTTTCA  
 AACACATCAGATGGTGTATGCTAGACAAAGATCTTTTTAAAAATGTGTTCCAGAGCAACATTGTTTTG  
 TTGACACAAGCATTAGAAAGAAAGTTTGTGATTCTGACTTTATGTCTTTACCTCACACATTGATGAGT  
 TATATGAAAGTGCTAAAAGCAGTCTGGAGGAAAGGTTGCAGATTATTCCTCAACTGGCCAAATTCAG  
 TCCCGATTTGTGGGGTGTGTCTGTTGTACAGTAGATGGACAGAGGCATTCTACTGGAGATACCAAAGTT  
 CCCTTCTGTCTTCAGTCTGTGAAAACCTTTGAAATATGCCATTGCTGTTAATGATCTTGGAACTGAAT  
 ATGTGCATCGATATGTTGGAAAAGAGCCGAGTGGACTAAGATTCAACAACTATTTTTGAATGAAGATGA  
 TAAACCACATAATCCTATGGTAAATGCTGGAGCAATTGTTGTGACTTCACTAATAAGCAAGGAGTAAAT  
 AATGCTGAAAAATTTGACTATGTCATGCAGTTTTTGAATAAGATGGCTGGTAATGAATATGTTGGATTCA  
 GTAATGCAACGTTTCAGTCTGAAAGAGAAAGTGGAGATCGAAATTTGCAATAGGATATTACTTAAAAGA  
 AAAGAAGTGTTCAGAAAGGCACAGACATGGTTGGTATATTAGACTTCTACTTCCAGCTGTGCTCCATT  
 GAAGTGACTTGTGAATCAGCCAGTGTGATGGCTGCGACACTGGCTAATGGTGGTTTCTGCCCAATTA  
 CTGAAAGAGTACTGAGCCCTGAAGCAGTTCGAAATACATTGAGTTTGTGATTCCTGTGGCATGTATGA  
 CTTCTCAGGGCAGTTTGCCTTCCATGTTGGTCTTCTGCAAAATCTGGAGTTGCTGGGGCATTCTTTTA  
 GTTGTCCCAATGTTATGGGTATGATGTGCTGGTCTCCTCCTCTGGATAAGATGGCAACAGTGTAAAGG  
 GAATTCATTTTGTACGATCTGTTTCTCTGTGTAATTTCCATAACTATGATAATTTGAGACACTTTGC  
 AAAAAACTTGATCCTCGAAGAGAAGGTGGTATCAAAGGTAAGTCAAGTATAATCTTTTGTGTTGCT  
 GCATATACTGGAGATGTGCTGCACTTCGAAGATTTGCTTTGTCAGCTATGGACATGGAACAGCGGGACT  
 ATGATTCTAGAACAGCACTCCATGTAGCTGCTGCAGAGGGTCATGTTGAAGTTGTTAAATTTTGTGGA  
 AGCCTGCAAAGTAAACCTTTCCCAAGGACAGGTGGAATAACACTCCCATGGATGAAGCACTGCACTTT  
 GGACACCATGATGATTTAAAATTTCCCAAGAATACCAAGTCCAGTACACACCTCAAGGAGATTCTGACA  
 ACGGGAAGGAAAATCAAACAGTCCATAAGAATCTTGATGGATTGTTG

AG**GCGACCG**ACGCGTACGCGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
 TGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC206265 representing NM\_014905  
 Red=Cloning site Green=Tags(s)

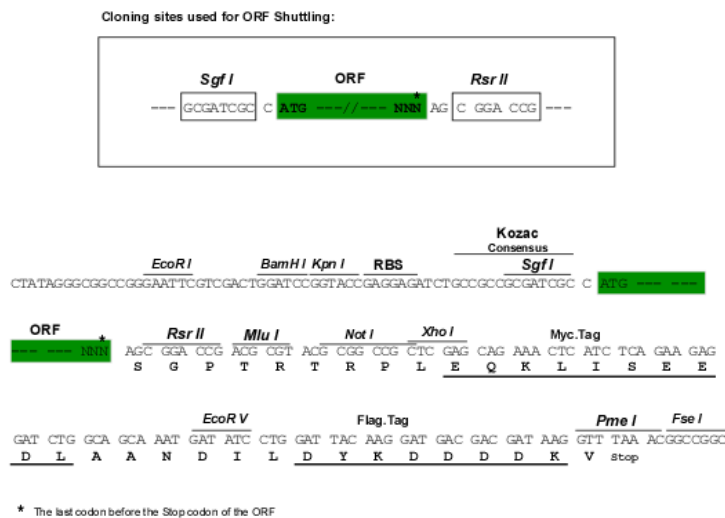
MMRLRGSGLRDLLLRSAPGVSATLRRRAQPLVTLRPRGGRPAAGPAAAAARLHPWWGGGGWPAEPLAR  
 GLSSSPSEILQELGKGSTHPQPGVSPAAAPGPKDGPGETDAFGNSEGKELVASGENKIKQGLLP  
 SLE DLLFYTIAEGQEKIPVHKFITALKSTGLRTSDPRLKECMDMLRLTLQTTSDGVMLDKDLFKKCVQSNIVL  
 LTQAFRRKFVIPDFMSFTSHIDELYESAKKQSGGKVADYIPQLAKFSPDLWGVSVCTVDGQRHSTGDTKV  
 PFCLQSCVKPLKYAIAVNDLGTEYVHRYVGKEPSGLRFNKLFLNEDDKPHNPMVNAGAIIVTSLIKQGVN  
 NAEKFDYVMQFLNKMAGNEYVGFSNATFQSERESGDRNFAIGYYLKEKKCFPEGTDMVGILDYFQLCSI  
 EVTCEASVMAATLANGGFCPITGERVLSPEAVRNTLSLMHSCGMYDFSGQFAFHVGLPAKSGVAGGILL  
 VVPNVMGMMCWSPPLDKMGNSVKGIFHCHDLVSLCNFNHYDNLRFHAKKLDPREGGDQRVKSVINLLFA  
 AYTGDVSALRRFALSAMDMEQRDYDSRTALHVAEEGHVEVVKFLLACKVNPFPKDRWNTPMDEALHF  
 GHHDVFKILQEYQVQYTPQGSDNGKENQTVHKNLDGLL

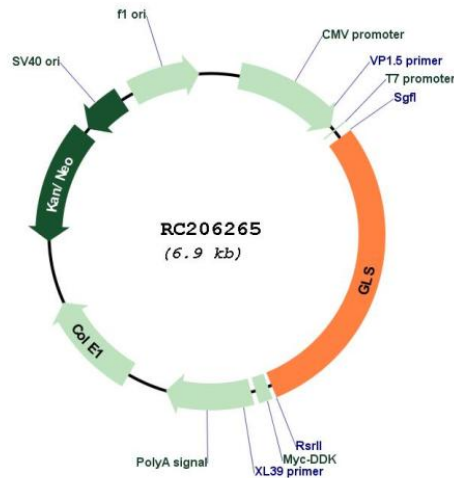
SGP TRRRLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: [https://cdn.origene.com/chromatograms/mg4496\\_h05.zip](https://cdn.origene.com/chromatograms/mg4496_h05.zip)

Restriction Sites: SgfI-RsrII

Cloning Scheme:



**Plasmid Map:**


**ACCN:** NM\_014905

**ORF Size:** 2007 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.

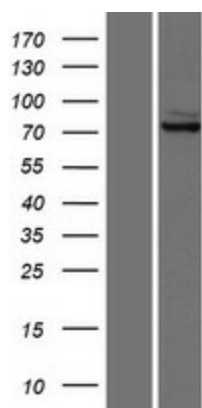
**RefSeq:** [NM\\_014905.5](#)

**RefSeq Size:** 4799 bp

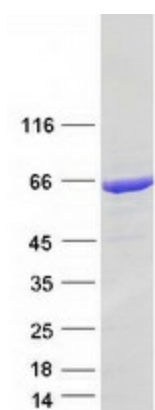
**RefSeq ORF:** 2010 bp

**Locus ID:** 2744  
**UniProt ID:** [O94925](#)  
**Cytogenetics:** 2q32.2  
**Domains:** ANK, Glutaminase  
**Protein Pathways:** Alanine, aspartate and glutamate metabolism, Arginine and proline metabolism, D-Glutamine and D-glutamate metabolism, Metabolic pathways, Nitrogen metabolism  
**MW:** 73.3 kDa  
**Gene Summary:** This gene encodes the K-type mitochondrial glutaminase. The encoded protein is an phosphate-activated amidohydrolase that catalyzes the hydrolysis of glutamine to glutamate and ammonia. This protein is primarily expressed in the brain and kidney plays an essential role in generating energy for metabolism, synthesizing the brain neurotransmitter glutamate and maintaining acid-base balance in the kidney. Alternate splicing results in multiple transcript variants. [provided by RefSeq, Jan 2012]

### Product images:



Western blot validation of overexpression lysate (Cat# [LY414900]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206265 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GLS protein (Cat# [TP306265]). The protein was produced from HEK293T cells transfected with GLS cDNA clone (Cat# RC206265) using MegaTran 2.0 (Cat# [TT210002]).