

Product datasheet for **RC234523**

Glutaminase (GLS) (NM_001256310) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Glutaminase (GLS) (NM_001256310) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Glutaminase
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)



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ORF Nucleotide Sequence:

>RC234523 representing NM_001256310
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGATGCGGCTGCGAGGCTCGGGATGTGCGGGACCTGCTCCTGCGGTGCGCCGCCGGCGTGAGCGCGA
 CTCTGCGGCGGGCACAGCCCTTGGTCACCTGTGCCGGCGTCCCGAGGCGGGGACGGCCGGCCGCGGG
 CCCGGCTGCCGCCGCGGACTCCACCCGTGGTGGGGCGGGGGCGGCTGGCCGGCGGAGCCCTCGCGCGG
 GGCCTGTCCAGCTCTCCTTCGGAGACTTTCAGGAGCTGGGCAAGGGGAGCACGCATCCGAGCCCGGGG
 TGTCGCCACCCGCTGCCCGGCGGCCCGGCCCAAGGACGGCCCGGGGAGACGGACGCGTTTGGCAA
 CAGCGAGGGCAAAGAGCTGGTGGCCTCAGTGAAAATAAAAATAAACAGGGTCTGTTACCTAGCTTGAA
 GATTTGCTGTTCTATAACAATTGCTGAAGGACAAGAAAAACCTGTTCAAAATTTATTACAGCACTCA
 AATCTACAGGATTGCGAACGTCTGATCCAGGTTGAAAGAGTGTATGGATATGTTAAGATTAACCTTTCA
 AACACATCAGATGGTGTGATGCTAGACAAAGATCTTTTTAAAAAATGTGTTCCAGAGCAACATTGTTTTG
 TTGACACAAGCATTTAGAAGAAAGTTTGTGATTCTGACTTTATGTCTTTTACCTCACACATTGATGAGT
 TATATGAAAGTGCTAAAAGCAGTCTGGAGGAAAGGTTGCAGATTATATTCCTCAACTGGCCAAATTCAG
 TCCCGATTTGTGGGGTGTGTCTGTTGTACAGTAGATGGACAGAGGCATTCTACTGGAGATACCAAAGTT
 CCCTTCTGTCTTCAGTCTGTGTAACCTTTGAAATATGCCATTGCTGTTAATGATCTTGGAACTGAAT
 ATGTGCATCGATATGTTGAAAAGAGCCGAGTGGACTAAGATTCAACAACTATTTTTGAATGAAGATGA
 TAAACCACATAATCCTATGGTAAATGCTGGAGCAATTGTTGTGACTTCACTAATAAGCAAGGAGTAAAT
 AATGCTGAAAAATTTGACTATGTCATGCAGTTTTTGAATAAGATGGCTGGTAATGAATATGTTGGATTCA
 GTAATGCAACGTTTCAGTCTGAAAGAGAAAGTGGAGATCGAAATTTTGCATAGGATATTACTTAAAGA
 AAAGAAGTGTTCAGAGAAAGCACAGACATGGTTGGTATATTAGACTTCTACTTCCAGCTGTGCTCCATT
 GAAGTGACTTGTGAATCAGCCAGTGTGATGGCTGCGGACTGGCTAATGGTGGTTTCTGCCCAATTAAGT
 GTGAAAGAGTACTGAGCCCTGAAGCAGTTCGAAATACATTGAGTTTGTGATTCCTGTGGCATGTATGA
 CTTCTCAGGGCAGTTTGTCTTCCATGTTGGTCTTCTGCAAAATCTGGAGTTGCTGGGGCATTCTTTTA
 GTTGTCCCAATGTTATGGGTATGATGTGCTGGTCTCCTCCTGATAAAGTGGCAACAGTGTAAAGG
 GAATTCACCTTTGTCACGATCTGTTTCTGTGTAATTTCCATAACTATGATAATTTGAGACACTTTGC
 AAAAAAATTGATCCTCGAAGAGAAGGTGGTGTCAAAGGCATTCCTTTGGACCATTGGACTATGAAAGT
 CTCCAACAAGAACTTGCTTTAAAGAGACAGTATGGAAAAAGTGTACCTGAGTCAAATGAGGACATCT
 CTACAAGTGTAGTATATAAGAAAGTCTGGGAGAGAAAAGC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC234523 representing NM_001256310
 Red=Cloning site Green=Tags(s)

MMRLRGSGLRDLLLRSPAGVSATLRRRAQPLVTLRPRRGGGRPAAGPAAAAARLHPWWGGGWPAPAEPLAR
 GLSSSPSEILQELGKSTHPQGVSPPAAPAAPGPKDGPGETDAFGNSEGKELVASGENKIKQGLLPSLE
 DLLFYTIAEGQEKIPVHKFITALKSTGLRTSDPRLKECMDMLRLTLQTTSDGVMLDKDLFKKCVQSNIVL
 LTQAFRRKFVIPDFMSFTSHIDELYESAKKQSGGKVADYIPQLAKFSPDLWGVSVCTVDGQRHSTGDTKV
 PFCLQSCVKPLKYAIAVNDLGTEYVHRYVVGKEPSGLRFNKLFLNEDDKPHNPMVNAGAI VVTSLIKQGVN
 NAEKFDYVMQFLNKMAGNEYVGF SNATFQSERESGDRNFAIGYYLKEKKCFPEGTDMVGI LDFYQLCSI
 EVTCEASVMAATLANGGFCPI TGERVLSPEAVRNTLSLMHSCGMYDFSGQFAFHVGLPAKSGVAGGILL
 VVPNVMGMMCWSPPLDKMGNSVKGIHFCHDLVSLCNFHNYDNLRFHAKKLDPRREGGDQRHSFGLPDYES
 LQQELALKETVWKKVSPESNEDISTTVVYRMESLGEKS

SGP**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-RsrII

Cloning Scheme:


ACCN: NM_001256310

ORF Size: 1794 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in *E. coli* are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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.

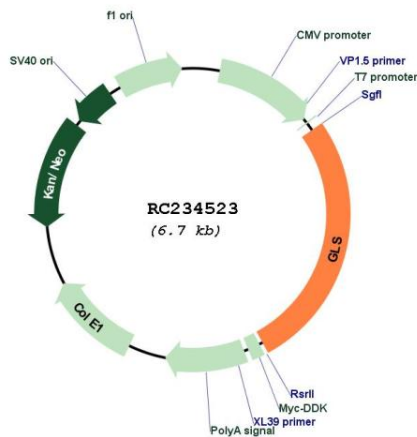
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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_001256310.2](#)

RefSeq Size:	4509 bp
RefSeq ORF:	1797 bp
Locus ID:	2744
UniProt ID:	<u>O94925</u>
Cytogenetics:	2q32.2
Protein Pathways:	Alanine, aspartate and glutamate metabolism, Arginine and proline metabolism, D-Glutamine and D-glutamate metabolism, Metabolic pathways, Nitrogen metabolism
MW:	65.9 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:



Circular map for RC234523