

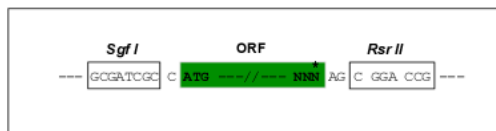
## Product datasheet for **RG234523**

### 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:	TurboGFP
Symbol:	GLS
Synonyms:	AAD20; CASGID; DEE71; EIEE71; GAC; GAM; GDPAG; GLS1; KGA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
Restriction Sites:	SgfI-RsrII
Cloning Scheme:	

Cloning sites used for ORF Shuttling:



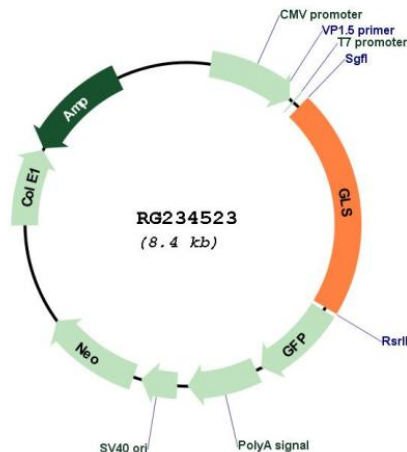
EcoRI BamHI KpnI RBS Kozac Consensus SgfI AscI  
 CTATAGGCGCGCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGATCGCCGCCGCGCCAGATCT

HindIII NheI RsrII MluI NotI XhoI GFP Tag  
 CAAGCTTAACTAGCTAGCGGACCG ACG CGT ACG CGG CCG CTC GAG ATG GAG AGC GAC ---

--- GAA GAA AGA GTT TAA ACGGCCGGCCGGAGCT  
 - - E E R V Stop



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**Plasmid Map:**


**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](mailto: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).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001256310.2</a>
<b>RefSeq Size:</b>	4509 bp
<b>RefSeq ORF:</b>	1797 bp
<b>Locus ID:</b>	2744
<b>UniProt ID:</b>	<a href="#">O94925</a>
<b>Cytogenetics:</b>	2q32.2
<b>Protein Pathways:</b>	Alanine, aspartate and glutamate metabolism, Arginine and proline metabolism, D-Glutamine and D-glutamate metabolism, Metabolic pathways, Nitrogen metabolism
<b>Gene Summary:</b>	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]