

Product datasheet for **RG207224**

GCLM (NM_002061) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GCLM (NM_002061) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GCLM
Synonyms:	GLCLR
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG207224 representing NM_002061 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGCACCGACAGCCGCGGCCAAGGCGCTCCTGGCGGGCCCGCACCTGCACCTGCAGACGGGA
ACCTGCTGAAGTGGGCGCCTGCGGAAGAAGTGCCCGTCCACGCACAGCGAGGAGCTTCATGATTGTAT
CCAAAAACCTTGAATGAATGGAGTTCCAAATCAACCCAGATTTGGTCAGGGAGTTCCAGATGTCTTG
GAATGCACTGTATCTCATGCAGTAGAAAAGATAAATCCTGATGAAAGAGAAGAAATGAAAGTTTCTGCAA
AACTGTTCAATTGAGAATCAAATCTTCATCATCAACTAGAAGTGCAGTTGACATGGCCTGTTCACTCCT
TGGAGTTGCACAGCTGGATTCTGTGATCATTGCTTACCTCCTATTGAAGATGGAGTTAATCTTTCCCTTG
GAGCATTTACAGCCTTACTGGGAGGAATTAGAAAATTTAGTTTCAAGCAAAAAGATTGTTGCCATAGGTA
CCTCTGATCTAGACAAAACAGTTGGAACAGCTGTATCAGTGGGCACAGGTAACCAAAATAGTAACCA
AGTTAATCTTGCCTCCTGCTGTGTGATGCCACCAGATTTGACTGCATTTGCTAAACAATTTGACATACAG
CTGTTGACTCACAAATGATCCAAAAGAACTGTTTCTGAAGCAAGTTTCCAAGAAGCTCTTCAGGAAAAGCA
TTCCTGACATTCAAGCGCAGAGTGGGTGCCGCTGTGGCTACTGCGGTATTCGGTCATTGTGAAAAGTAG
AGGAATTATCAAATCAAAGGCTACATTTACAAGCTAAAAGAAGGGTTCT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG207224 representing NM_002061
 Red=Cloning site Green=Tags(s)

MGTD SRAAKALLARARTLHLQTGNLLNWGRLRKKCPSTHSEELHDCIQKTLNEWSSQINPDLVREFPDVL
 ECTVSHAVEKINPDEREEMKVS AKLFIVESNSSSTRSAVDMACSVLGVAQLDSVVIASPPIEDGVNLSL
 EHLQPYWEELNLVQSKKIVAIGTSDLDKTQLEQLYQWAQVKPNSNQVNLASCCVMPPDLTAF AKQFDIQ
 LLTHNDPKELLSEASFQEALQESIPDIIQAHEWVPLWLLRYSVIVKSRGIKSKGYILQAKRRGS

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002061

ORF Size: 822 bp

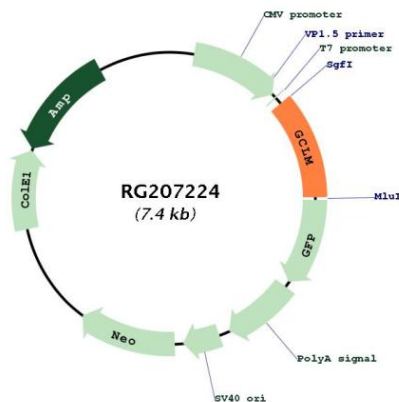
OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA 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:	<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:	<u>NM_002061.4</u>
RefSeq Size:	3074 bp
RefSeq ORF:	825 bp
Locus ID:	2730
UniProt ID:	<u>P48507</u>
Cytogenetics:	1p22.1
Protein Families:	Druggable Genome
Protein Pathways:	Glutathione metabolism, Metabolic pathways
Gene Summary:	Glutamate-cysteine ligase, also known as gamma-glutamylcysteine synthetase, is the first rate limiting enzyme of glutathione synthesis. The enzyme consists of two subunits, a heavy catalytic subunit and a light regulatory subunit. Gamma glutamylcysteine synthetase deficiency has been implicated in some forms of hemolytic anemia. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Apr 2015]

Product images:



Circular map for RG207224