

Product datasheet for **SC119206**

GCLC (NM_001498) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GCLC (NM_001498) Human Untagged Clone
Tag:	Tag Free
Symbol:	GCLC
Synonyms:	GCL; GCS; GLCL; GLCLC
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC119206 sequence for NM_001498 edited (data generated by NextGen Sequencing)

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ATGGGGTGTGTCCCAGGGCTCGCCGCTGAGCTGGGAGGAAACCAAGCGCCATGCCGAC
CACGTGCGGGCGGCACGGGATCCTCCAGTTCCTGCACATCTACCACGCCGTCAAGGACCGG
CACAAGGACGTTCTCAAGTGGGGCGATGAGGTGGAATACATGTTGGTATCTTTTGATCAT
GAAAATAAAAAAGTCCGGTTGGTCTGTCTGGGGAGAAAGTCTTGAAACTCTGCAAGAG
AAGGGGAAAGGACAAACCCAAACCCTACCCTTTGGAGACCAGAGTATGGGAGTTAC
ATGATTGAAGGGACACCAGGACAGCCCTACGGAGGAACAATGTCCGAGTTCAATACAGTT
GAGGCCAACATGCGAAAACGCCGGAAGGAGGCTACTTCTATATTAGAAGAAAATCAGGCT
CTTTGCACAATAACTTCAATTTCCAGATTAGGCTGTCTGGGTTCACTGCCCCGAGGTC
AAACCCAAACCCAGTGAAGGAGGAGCTTCCAAGTCCCTCTTTCCAGATGAAGCAATA
AACCAAGCACCTCGTTCAGTACCTTAACAAGAAATATCCGACATAGGAGAGGAGAAAAG
GTTGTCATCAATGTACCAATATTTAAGGACAAGAATACACCATCTCCATTTATAGAAACA
TTTACTGAGGATGATGAAGCTTCAAGGGCTTCTAAGCCGGATCATATTTACATGGATGCC
ATGGGATTTGGAATGGGCAATTGCTGTCTCCAGGTGACATTCCAAGCCTGCAGTATATCT
GAGGCCAGATACCTTTATGATCAGTTGGCTACTATCTGTCCAATTGTTATGGCTTTGAGT
GCTGCATCTCCCTTTTACCGAGGCTATGTGTCAGACATTGATTGTCGCTGGGGAGTGATT
TCTGCATCTGTAGATGATAGAACTCGGGAGGAGCGAGGACTGGAGCCATTGAAGAACAAT
AACTATAGGATCAGTAAATCCCAGATGACTCAATAGACAGCTATTTATCTAAGTGTGGT
GAGAAATATAATGACATCGACTTGACGATAGATAAAGAGATCTACGAACAGCTGTTGCAG
GAAGGCATTGATCATCTCCTGGCCAGCATGTTGCTCATCTTTATTAGAGACCCACTG
ACACTGTTTGAAGAGAAAATACACCTGGATGATGCTAATGAGTCTGACCATTTTGAGAAT
ATTCAGTCCACAATTTGGCAGACAATGAGATTTAAGCCCCCTCCTCCAAACTCAGACATT
GGATGGAGAGTAGAATTTGACCCATGGAGGTGCAATTAACAGACTTTGAGAACTCTGCC
TATGTGGTGTGTTGTTGTTACTGCTCACCAGAGTGATCCTTTCTACAAATTGGATTTTCTC
ATTCCACTGTCAAAGGTTGATGAGAACATGAAGGTAGCACAGAAAAGAGATGCTGTCTTG
CAGGGAATGTTTTATTTAGGAAAGATATTTGCAAAGGTGGCAATGCAGTGGTGGATGGT
TGTGGCAAGGCCAGAACAGCACGGAGCTCGCTGCAGAGGAGTACACCCTCATGAGCATA
GACACCATCATCAATGGGAAGGAAGGTGTGTTTCTGGACTGATCCCAATTCTGAACTCT
TACCTTGAACATGGAAGTGGATGTGGACACCAGATGTAGTATTCTGAACTACCTAAAG
CTAATTAAGAAGAGAGCATCTGGAGAATAATGACAGTTGCCAGATGGATGAGGGAGTTT
ATCGCAAACCATCCTGACTACAAGCAAGACAGTGCATAACTGATGAAATGAATTATAGC
CTTATTTTGAAGTGAACCAAATTGCAAATGAATTATGTGAATGCCAGAGTTACTTGGGA
TCAGCATTTAGGAAAGTAAAATATAGTGAAGTAAAACCTGACTCATCCAACCTAG
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Clone variation with respect to NM_001498.3

5' Read Nucleotide Sequence:	<p>>OriGene 5' read for NM_001498 unedited</p> <pre> AGAATTTTGAATACGACTCACTATAGGGCGGCCGCGCAGCCGCCTTCTGCGGGCGGCTG AGTGTCCGTCTCGCGCCCGGAGCGGGCGACCGCCGTCAGCCCGGAGGAGGAGGAGGAGGA GGAGGGGGCGGCCATGGGGCTGCTGTCCAGGGCTCGCCGCTGAGCTGGGAGGAAACCAA GCGCCATGCCGACCACGTGCGGGCGCACGGGATCCTCCAGTTCCTGCACATCTACCACGC CGTCAAGGACCGGCACAAGGACGTTCTCAAGTGGGGCGATGAGGTGGAATACATGTTGGT ATCTTTTTCATGAAAATAAAAAAGTCCGGTTGGTCTGTCTGGGGAGAAAAGTTCTTGA AACTCTGCAAGAGAAGGGGGAAAAGGACAAACCCAAACCATCCTACCCTTTGGAGACCAGA GTATGGGAGTTACATGATTGAAGGGACACCAGGACAGCCCTACGGAGGAACAATGTCCGA GTTCAATACAGTTGAGGCCAACATGCGAAAACGCCGAAGGAGGCTACTTCTATATTAGA AGAAAATCAGGCTCTTTGCACAATAACTTCATTTCCAGATTAGGCTGTCTGGGTTTAC ACTGCCGAGGTCAAACCAACCCAGTGAAGGAGGAGCTTCCAAGTCCCTCTTCTTTCC AGATGAAGCAATAACAAGCACCTCGCTTCAGTACCTTAACAAGAATATCCGACATANG AGAGGAGAAAAGGGTGCATCAATGTACCAATATTTAAGGACCAGAATACACCATCTNCA TTTATAGAAACATTTACTGAGGATGATGAAGCTTCAAGGGNCTCTAGCCGNATCATANT ACATGGATGCCATGGGATNNTGAATGGGCAATNGCTGTCTNNCAGTGACATTCCAGCCTG CAGTATATCTGAGCCGATACCTTTATGATCAGTGCTACATCTGTCCAATGTATGGNCTT GATGCTGCATCTCTTTACGAGGCTTGTGTCAAACCTGATGTCN </pre>
3' Read Nucleotide Sequence:	<p>>OriGene 3' read for NM_001498 unedited</p> <pre> NNGGTTTAGACTTGNACCGCGCCGCAAACCTANGATCGAGTTTTTTTTTTTTTTTTTTTTT TTTTTTTTTTTTTTTTTTCAAATTCAGGGGTATTTATTCAAAGGGGAAAGCTTGGGGCA AAGGTGACCAAGTGATTATTCCAATTGCAAAGAAACTCATAGATAAGGGGCTAGAAACC CAAATACCCCTGAAGCACTTTCAATGGATTCAAGTGATTTAATGTAGCAACAAGGA AATGACCAAGGAAAATTAACGAGAGAAAATGTTTTAAAGAAAAAAATTTCAATAAATCA GGTCCCAGGTAGTCTTTAAAAGAACAAAATTTACAGTAAACATTTTAACTCTGGAATGC AAGTATTGTACAATTACCAGTACATTTACAAAAGTCTTAAACAGTAGGTTGCTCCAAAG TAAGAATTTAAAATGTACAAGCCAGTTCATGATGACTTTAGATATGTTATTTAAAATACA TTGTTAATCAAAAATCTTTACTATGTACATGTACACTGTATAAACTCTAGATTTACCTA CCAAAGAAAGCCTTAATCAATTTCTGGCTCACTGGCCCAAAAAACAGGACAGTTTACCTA TTTGGGCTTCATATTATACACACGGGCTGAGAGGCAATGGTACTGTACCCAGTTCGTCAT AATGCATTTTTCTTTCTGTAATAATGTCTAGTTGGATGAGTCAGTTTTACTTCCACTATAT TTTACTTTCTAAATGCTGATCCAAGTAACTCTGGGCATTACATAAATTCATTTGCGATT TGGTTACACTTCAAAAAAGGCTATAATTCATTTTCATCAGTTATGACACTGTCTTGCTTGT AATCAGAAATGTTTGGGATAAACTCCCTCAAACATCTGGCAACTGTCATTAGTTT </pre>
Restriction Sites:	NotI-NotI
ACCN:	NM_001498
Insert Size:	3000 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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_001498.2 , NP_001489.1
RefSeq Size:	3717 bp
RefSeq ORF:	1914 bp
Locus ID:	2729
UniProt ID:	P48506
Cytogenetics:	6p12.1
Domains:	GCS
Protein Families:	Druggable Genome
Protein Pathways:	Glutathione metabolism, Metabolic pathways
Gene Summary:	<p>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. This locus encodes the catalytic subunit, while the regulatory subunit is derived from a different gene located on chromosome 1p22-p21. Mutations at this locus have been associated with hemolytic anemia due to deficiency of gamma-glutamylcysteine synthetase and susceptibility to myocardial infarction.[provided by RefSeq, Oct 2010]</p> <p>Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (a).</p>