

## Product datasheet for **RG231330**

### **GCLC (NM\_001197115) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	GCLC (NM_001197115) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GCLC
Synonyms:	GCL; GCS; GLCL; GLCLC
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG231330 representing NM\_001197115  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGGGCTGCTGTCCAGGGCTCGCCGCTGAGCTGGGAGGAAACCAAGCGCCATGCCGACCAGTGC  
 GGCACGGGATCCTCCAGTTCCTGCACATCTACCACGCGTCAAGGACCGGCACAAGGACGTTCTCAAGT  
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 TCTGTCCAATTGTTATGGCTTGTAGTGTGCATCTCCCTTTTACCAGGGCTATGTGTCAGACATTGATTG  
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 TATAGCCTTATTTGAAGTGAACCAAAATGCAAATGAATTATGTGAATGCCAGAGTACTTGGATCAG  
 CATTTAGGAAAGTAAAATATAGTGAAGTAAAACCTGACTCATCCAAC

**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA**

**Protein Sequence:**

>RG231330 representing NM\_001197115  
 Red=Cloning site Green=Tags(s)

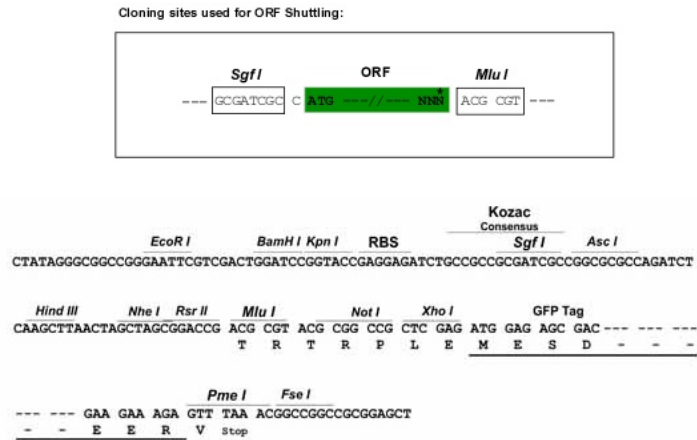
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**TRTRPLE - GFP Tag - V**

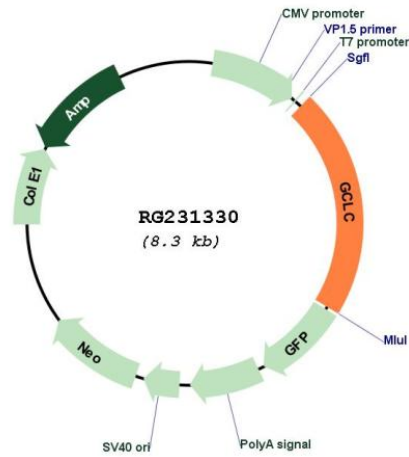
**Restriction Sites:**

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_001197115

ORF Size: 1797 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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_001197115.2</a>
<b>RefSeq Size:</b>	3709 bp
<b>RefSeq ORF:</b>	1800 bp
<b>Locus ID:</b>	2729
<b>UniProt ID:</b>	<a href="#">P48506</a>
<b>Cytogenetics:</b>	6p12.1
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Glutathione metabolism, Metabolic pathways
<b>Gene Summary:</b>	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]