

## Product datasheet for **RC207915**

### **GCLC (NM\_001498) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	GCLC (NM_001498) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GCLC
Synonyms:	GCL; GCS; GLCL; GLCLC
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide  
Sequence:**

>RC207915 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

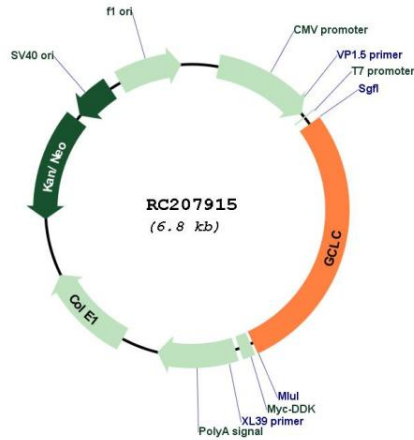
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 TGAGAACATGAAGGTAGCACAGAAAAGAGATGCTGTCTTGCAAGGAAATGTTTTATTTAGGAAAAGATATT  
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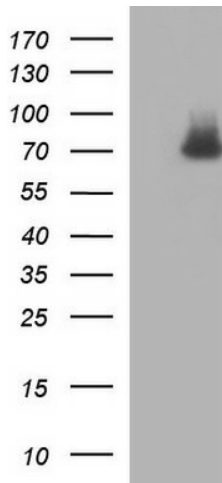


<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and 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>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_001498.4</a>
<b>RefSeq Size:</b>	3823 bp
<b>RefSeq ORF:</b>	1914 bp
<b>Locus ID:</b>	2729
<b>UniProt ID:</b>	<a href="#">P48506</a>
<b>Cytogenetics:</b>	6p12.1
<b>Domains:</b>	GCS
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Glutathione metabolism, Metabolic pathways
<b>MW:</b>	72.8 kDa
<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]

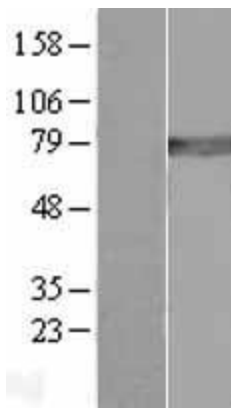
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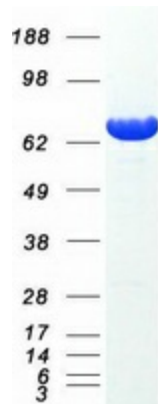
Circular map for RC207915



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY GCLC (Cat# RC207915, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-GCLC (Cat# [TA507318]). Positive lysates [LY419901] (100ug) and [LC419901] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY419901]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207915 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GCLC protein (Cat# [TP307915]). The protein was produced from HEK293T cells transfected with GCLC cDNA clone (Cat# RC207915) using MegaTran 2.0 (Cat# [TT210002]).