

**GCLC Antibody (Center)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP18483c**

**Specification**

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**GCLC Antibody (Center) - Product Information**

Application	WB,E
Primary Accession	<a href="#">P48506</a>
Other Accession	<a href="#">P19468</a> , <a href="#">P97494</a> , <a href="#">NP_001489.1</a>
Reactivity	Human, Mouse
Predicted	Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	72766
Antigen Region	286-315

**GCLC Antibody (Center) - Additional Information**

**Gene ID** 2729

**Other Names**

Glutamate--cysteine ligase catalytic subunit, GCS heavy chain, Gamma-ECS,  
Gamma-glutamylcysteine synthetase, GCLC, GLCL, GLCLC

**Target/Specificity**

This GCLC antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 286-315 amino acids from the Central region of human GCLC.

**Dilution**

WB~~1:1000

E~~Use at an assay dependent concentration.

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

GCLC Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

**GCLC Antibody (Center) - Protein Information**

**Name** GCLC ([HGNC:4311](#))

**Synonyms** GLCL, GLCLC

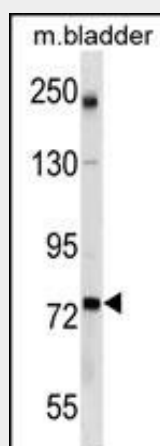
**Function** Catalyzes the ATP-dependent ligation of L-glutamate and L- cysteine and participates in the first and rate-limiting step in glutathione biosynthesis.

### GCLC Antibody (Center) - Protocols

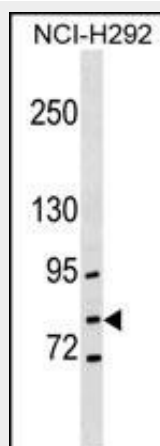
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### GCLC Antibody (Center) - Images



GCLC Antibody (Center) (Cat. #AP18483c) western blot analysis in mouse bladder tissue lysates (35ug/lane). This demonstrates the GCLC antibody detected the GCLC protein (arrow).



GCLC Antibody (Center) (Cat. #AP18483c) western blot analysis in NCI-H292 cell line lysates (35ug/lane). This demonstrates the GCLC antibody detected the GCLC protein (arrow).

### **GCLC Antibody (Center) - Background**

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.

### **GCLC Antibody (Center) - References**

Man, B.L., et al. J Clin Neurosci 17(10):1244-1247(2010)  
Jia, P., et al. Schizophr. Res. 122 (1-3), 38-42 (2010) :  
Le, T.M., et al. Mol. Genet. Metab. 101(1):55-61(2010)  
Fullerton, J.M., et al. Bipolar Disord 12(5):550-556(2010)  
Wang, X., et al. PLoS ONE 5 (8), E11934 (2010) :