

**Anti-GCLC Picoband Antibody**  
**Catalog # ABO11892****Specification**

---

**Anti-GCLC Picoband Antibody - Product Information**

Application	WB, IHC-P
Primary Accession	<a href="#">P48506</a>
Host	Rabbit
Reactivity	Human, Rat
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Glutamate--cysteine ligase catalytic subunit(GCLC) detection.  
Tested with WB, IHC-P in Human;Rat.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-GCLC Picoband Antibody - Additional Information**

**Gene ID** 2729

**Other Names**

Glutamate--cysteine ligase catalytic subunit, 6.3.2.2, GCS heavy chain, Gamma-ECS,  
Gamma-glutamylcysteine synthetase, GCLC, GLCL, GLCLC

**Calculated MW**

72766 MW KDa

**Application Details**

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat<br>Western blot, 0.1-0.5 µg/ml, Human, Rat<br>

**Protein Name**

Glutamate--cysteine ligase catalytic subunit

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Na<sub>3</sub>.

**Immunogen**

E.coli-derived human GCLC recombinant protein (Position: E437-N637). Human GCLC shares 94% amino acid (aa) sequence identity with both mouse and rat GCLC.

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins

**Storage**

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

**Sequence Similarities**

Belongs to the glutamate--cysteine ligase type 3 family.

**Anti-GCLC Picoband Antibody - Protein Information**

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

**Synonyms** GLCL, GLCLC

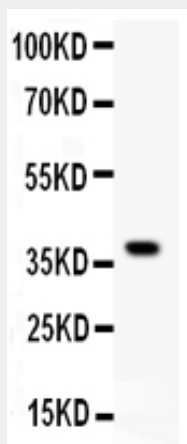
**Function**

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

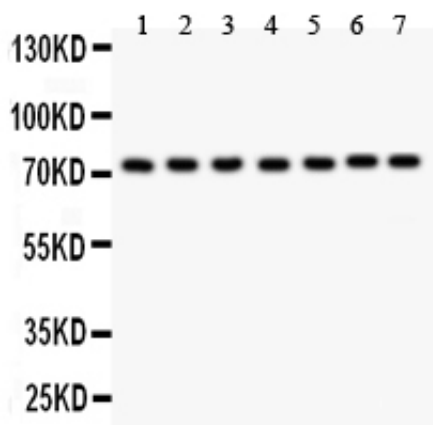
**Anti-GCLC Picoband Antibody - Protocols**

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

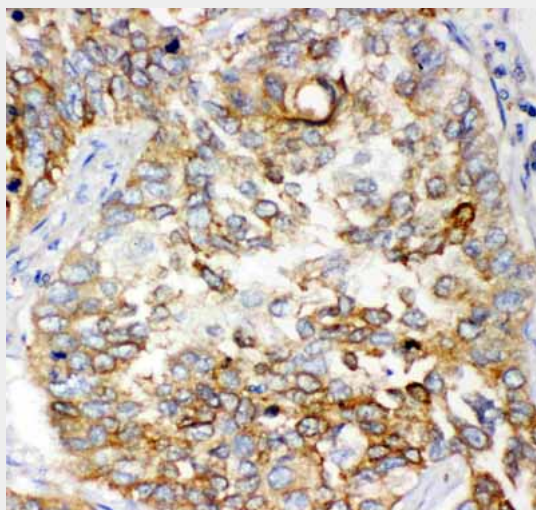
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Anti-GCLC Picoband Antibody - Images**

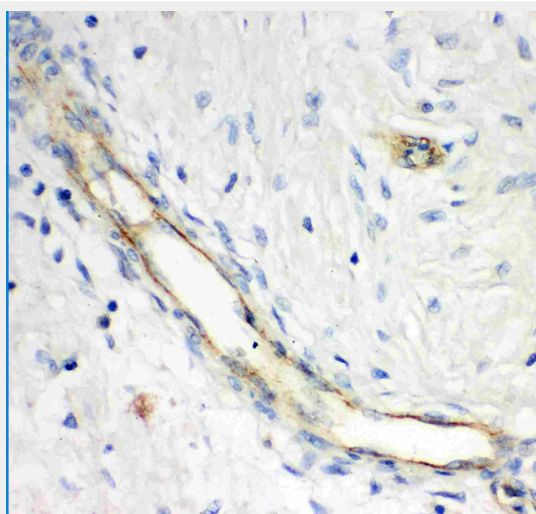
Anti- GCLC antibody, ABO11892, Western blotting All lanes: Anti GCLC (ABO11892) at 0.5ug/ml WB: Recombinant Human GCLC Protein 0.5ng Predicted bind size: 40KD Observed bind size: 40KD



Anti- GCLC antibody, ABO11892, Western blottingAll lanes: Anti GCLC (ABO11892) at 0.5ug/mlLane 1: Rat Brain Tissue Lysate at 50ugLane 2: Rat Cardiac Muscle Tissue Lysate at 50ugLane 3: HELA Cell Lysate at 40ugLane 4: PC-12 Whole Cell Lysate at 40ugLane 5: NRK Whole Cell Lysate at 40ugLane 6: HEPA Whole Cell Lysate at 40ugLane 7: A549 Whole Cell Lysate at 40ugPredicted bind size: 72KDObserved bind size: 72KD



Anti- GCLC antibody, ABO11892, IHC(P)IHC(P): Human Lung Cancer Tissue



Anti- GCLC antibody, ABO11892, IHC(P)IHC(P): Human Mammary Cancer Tissue

**Anti-GCLC Picoband Antibody - Background**

GCLC, also named Glutamate--cysteine ligase catalytic subunit, is an enzyme that in humans is encoded by the GCLC gene. 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. The gene encoding the catalytic subunit encodes a protein of 367 amino acids with a calculated molecular weight of 72.773 kDa and maps to chromosome 6p12.1. Deficiency of gamma-glutamylcysteine synthetase in human is associated with enzymopathic hemolytic anemia.