

Anti-GCLC Antibody
Catalog # ABO10811**Specification**

Anti-GCLC Antibody - Product Information

Application	WB, IHC-P
Primary Accession	P48506
Host	Rabbit
Reactivity	Human, Mouse, 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;Mouse;Rat.

Reconstitution

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

Anti-GCLC 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, Rat, Mouse, By Heat
Western blot, 0.1-0.5 µg/ml, Rat, Human, Mouse

Protein Name

Glutamate--cysteine ligase catalytic subunit

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence at the N-terminus of human GCLC(7-24aa GSPLSWEETKRHADHVRR), different from the related rat and mouse sequences by one amino acid.

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 Antibody - Protein Information

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

Synonyms GLCL, GLCLC

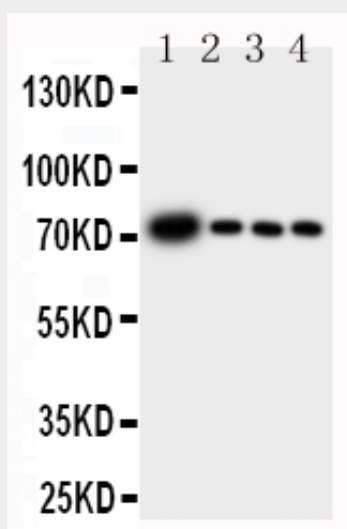
Function

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

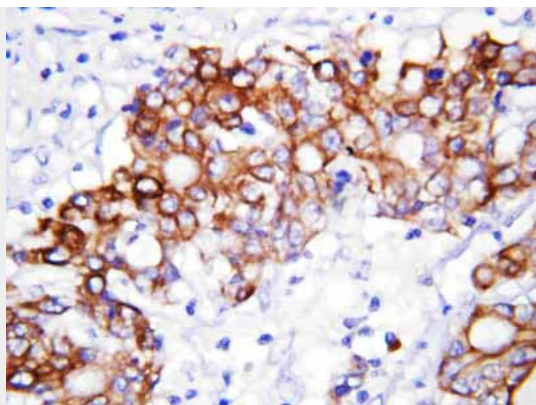
Anti-GCLC Antibody - Protocols

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 Antibody - Images

Anti-GCLC antibody, ABO10811, Western blotting
Lane 1: Rat Brain Tissue Lysate
Lane 2: Rat Kidney Tissue Lysate
Lane 3: Rat Heart Tissue Lysate
Lane 4: Rat Lung Tissue Lysate



Anti-GCLC antibody, ABO10811, IHC(P)IHC(P): Human Rectal Cancer Tissue

Anti-GCLC Antibody - Background

GCLC, 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.