

GCLC Antibody (N-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP11943a

Specification

GCLC Antibody (N-term) - Product Information

Application	FC, IF, IHC-P, WB,E
Primary Accession	P48506
Other Accession	NP_001489.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	72766
Antigen Region	1-30

GCLC Antibody (N-term) - 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 1-30 amino acids from the N-terminal region of human GCLC.

Dilution

FC~~1:10~50
IF~~1:10~50
IHC-P~~1:10~50
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 (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

GCLC Antibody (N-term) - Protein Information

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

Synonyms GLCL, GLCLC

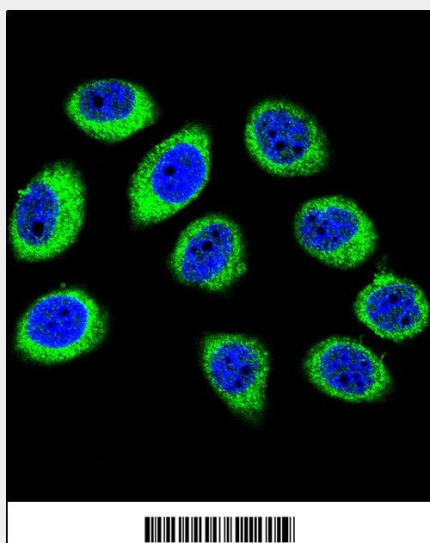
Function Catalyzes the ATP-dependent ligation of L-glutamate and L- cysteine and participates in the first and rate-limiting step in glutathione biosynthesis.

GCLC Antibody (N-term) - Protocols

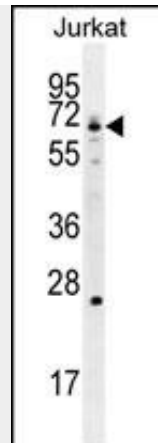
Provided below are standard protocols that you may find useful for product applications.

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

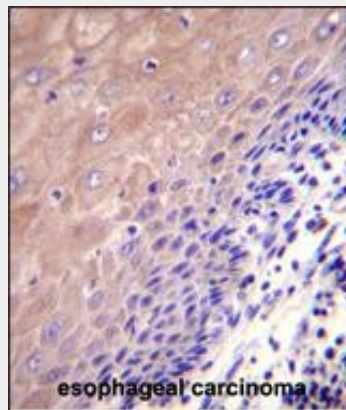
GCLC Antibody (N-term) - Images



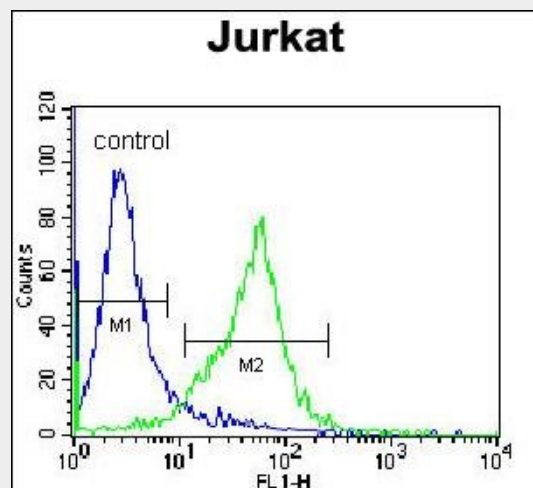
Confocal immunofluorescent analysis of GCLC Antibody (N-term)(Cat#AP11943a) with U-251MG cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). DAPI was used to stain the cell nuclear (blue).



GCLC Antibody (N-term) (Cat. #AP11943a) western blot analysis in Jurkat cell line lysates (35ug/lane). This demonstrates the GCLC antibody detected the GCLC protein (arrow).



GCLC Antibody (N-term) (Cat. #AP11943a) immunohistochemistry analysis in formalin fixed and paraffin embedded human esophageal carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of GCLC Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.



GCLC Antibody (N-term) (Cat. #AP11943a) flow cytometric analysis of Jurkat cells (right histogram) compared to a negative control cell (left histogram). FITC-conjugated donkey-anti-rabbit secondary antibodies were used for the analysis.

GCLC Antibody (N-term) - 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 (N-term) - 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) :

GCLC Antibody (N-term) - Citations

- [The protective role of resveratrol in the sodium arsenite-induced oxidative damage via modulation of intracellular GSH homeostasis.](#)