10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

GCLC Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP18483c

Product Information

Application	WB, E
Primary Accession	P48506
Other Accession	P19468, P97494, NP_001489.1
Reactivity	Human, Mouse
Predicted	Rat, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB37579
Calculated MW	72766
Antigen Region	286-315

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.

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.

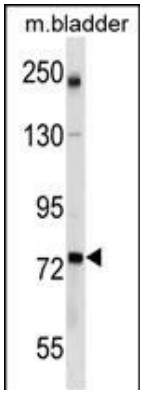
Background

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.

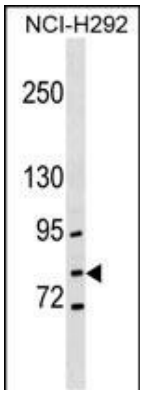
References

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) :

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).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.