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Rabbit Anti-GCLC antibody

SL23393R

Product Name:	GCLC
Chinese Name:	γ谷氨酰半胱氨酸合成酶抗体
Alias:	Gamma ECS; Gamma GCS; Gamma glutamylcysteine synthetase; Gamma-ECS; Gamma-glutamylcysteine synthetase; GCL; GCLC; GCS; GCS Heavy Chain antibody GLCL; GLCLC; GLCLR; Glutamate cysteine ligase catalytic subunit; Glutamate cysteine ligase (gamma glutamylcysteine synthetase) regulatory (30.8kD); Glutamate cysteine ligase catalytic subunit; Glutamate cysteine ligase modifier subunit; Glutamate cysteine ligase regulatory protein; Glutamate cysteine ligase regulatory subunit; Glutamate--cysteine ligase catalytic subunit; GSH1_HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Pig,Cow,Horse,Rabbit,Zebrafish,
Applications:	WB=1:500-2000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	73kDa
Cellular localization:	cytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human GCLC:351-450/637
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	The GCLC gene consists of 16 exons and encodes the 636 amino acid protein g-GCSc

(g-glutamylcysteine synthetase heavy subunit), also designated g-L-glutamate-L-cysteine ligase catalytic subunit (GLCLC). g-GCSc is expressed in hemocytes, brain, liver and kidney. g-GCSc associates with a regulatory or modifier subunit, g-GCSm (g-glutamylcysteine synthetase light subunit), to form a heterodimer, g-GCS. g-GCS is the first enzyme involved and the rate determining step in glutathione biosynthesis. Oxidants, cadium and methyl mercury upregulate the transcription of g-GCS. H2O2 regulation depends on the Yap1 protein and the presence of glutamate, glutamine and lysine. Cadium regulates transcription through proteins Met-4, Met-31 and Met-32. Cbf1, a DNA binding protein, inhibits transcription of g-GCS. Chemopreventive compounds cause increased levels of g-GCSc in kidney tissues, which may protect against chemically induced carcinogenesis. A His370Leu amino acid change in g-GCSc causes deficiencies in activity which are responsible for hemolytic anemia and low red blood cell glutathione levels. Defects in GCLC are the cause of hemolytic anemia.

Subunit:
Heterodimer of a catalytic heavy chain and a regulatory light chain.

DISEASE:
Defects in GCLC are the cause of hemolytic anemia (HAGGSD) [MIM:230450].

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

SWISS:
P48506

Gene ID:
2729

Database links:

Entrez Gene: 2729Human

Entrez Gene: 14629Mouse

Entrez Gene: 25283Rat

Omim: 606857Human

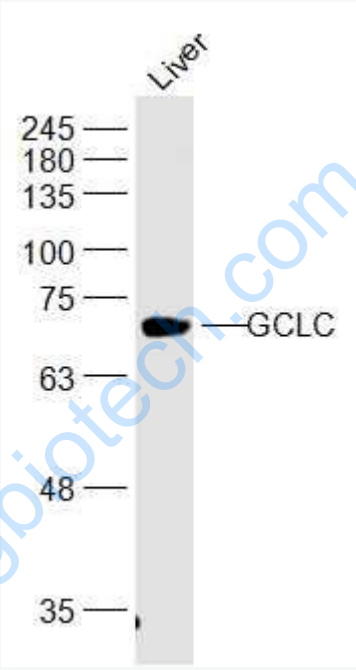
SwissProt: P48506Human

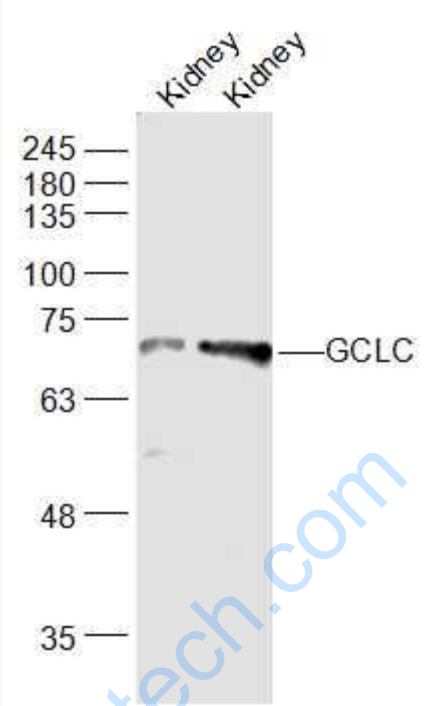
SwissProt: P97494Mouse

SwissProt: P19468Rat

Unigene: 654465Human

Unigene: 89888Mouse

	Unigene: 8365Rat **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Picture:	 Sample: Liver (Mouse) Lysate at 40 ug Primary: Anti-GCLC (SL23393R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 73 kD Observed band size: 73 kD



Sample:

Kidney (Mouse) Lysate at 40 ug

Kidney (Rat) Lysate at 40 ug

Primary: Anti-GCLC (SL23393R) at 1/1000 dilution

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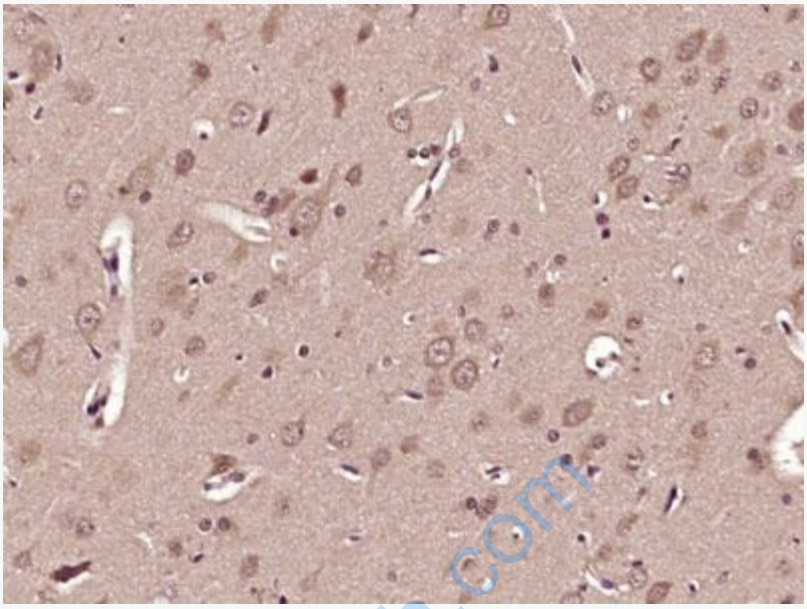
Observed band size: 73 kD



Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (GCLC) Polyclonal Antibody, Unconjugated (SL23393R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.