Product Name: KD-Validated GCLC Recombinant Rabbit Monoclonal Antibody
Catalog #: KVAb00738
For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000
Molecular Weight	Calculated MW: 72.8kDa

Antigen Information

Gene Name	GCLC
Alternative Names	GCLC; Glutamate-Cysteine Ligase Catalytic Subunit; GLCLC; GLCL; GCS; Glutamate--Cysteine Ligase Catalytic Subunit; Gamma-Glutamylcysteine Synthetase; GCS Heavy Chain; EC 6.3.2.2; Gamma-ECS; Glutamate-Cysteine Ligase, Catalytic Subunit; GCL
Gene ID	2729.0
SwissProt ID	P48506
Immunogen	Recombinant protein of human GCLC

Background

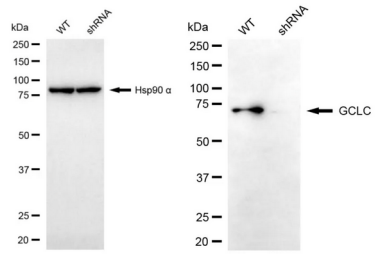
Glutamate-cysteine ligase, also known as gamma-glutamylcysteine synthetase is the first rate-limiting enzyme of glutathione synthesis. The enzyme consists of two subunits, a heavy catalytic subunit and a light regulatory subunit. This locus encodes the

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.[provided by RefSeq, Oct 2010]

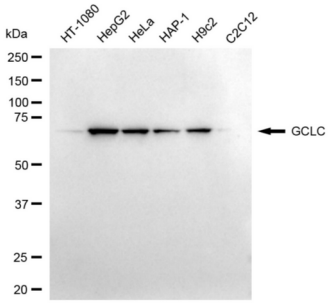
Research Area

Signal Transduction,Cell Biology,Metabolism

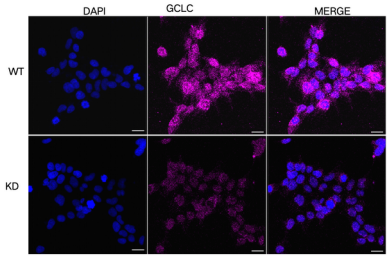
Image Data



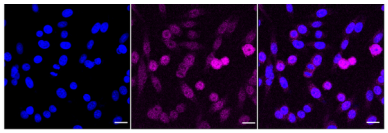
Western blotting analysis using GCLC antibody (KVAb00738). GCLC expression in wild type (WT) and GCLC shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with GCLC antibody (KVAb00738, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



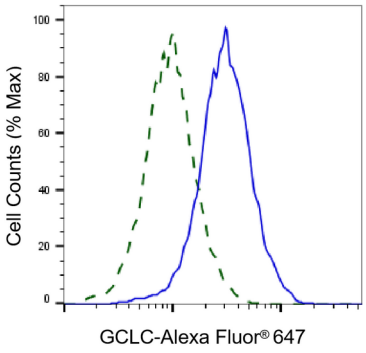
Western blotting analysis using GCLC antibody (KVAb00738). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with GCLC antibody (KVAb00738, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



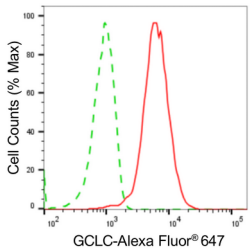
Immunocytochemical staining of HeLa cells using GCLC antibody (KVAb00738, 1:1,000), Top panel: wild-type (WT); Bottom panal: GCLC shRNA knockdown (KD). Nuclei were stained blue with DAPI; GCLC was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm.



Immunocytochemical staining of HepG2 cells with GCLC antibody (KVAb00738, 1:1,000). Nuclei were stained blue with DAPI; GCLC was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.



Validation of GCLC knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with GCLC antibody (KVAb00738, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of GCLC expression in HepG2 cells using GCLC antibody ((KVAb00738, 1:2,000). Green, isotype control; red,GCLC.