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

GCLM Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9102B

Product Information

Application	WB, FC, IF, IHC-P, E
Primary Accession	P48507
Other Accession	O09172
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB22980
Calculated MW	30727
Antigen Region	246-274

Additional Information

Gene ID	2730
Other Names	Glutamate--cysteine ligase regulatory subunit, GCS light chain, Gamma-ECS regulatory subunit, Gamma-glutamylcysteine synthetase regulatory subunit, Glutamate--cysteine ligase modifier subunit, GCLM, GLCLR
Target/Specificity	This GCLM antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 246-274 amino acids from the C-terminal region of human GCLM.
Dilution	WB~~1:1000 FC~~1:10~50 IF~~1:10~50 IHC-P~~1:100~500 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	GCLM Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GCLM
Synonyms	GLCLR

Tissue Location	In all tissues examined. Highest levels in skeletal muscle

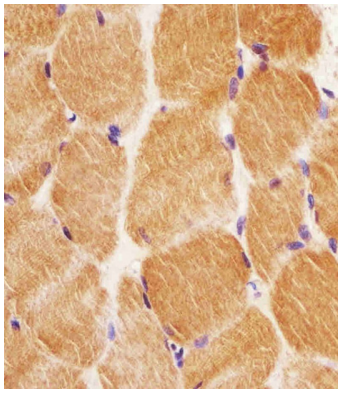
Background

GCLM 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. Gamma glutamylcysteine synthetase deficiency has been implicated in some forms of hemolytic anemia.

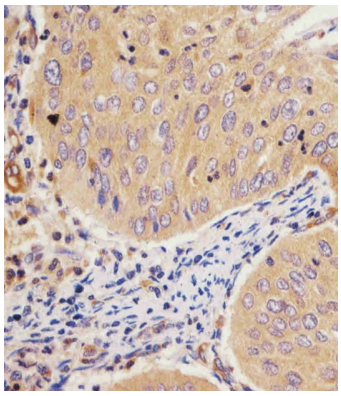
References

Moyer,A.M., et.al., Cancer Epidemiol. Biomarkers Prev. 19 (3), 811-821 (2010) Engstrom,K.S., et.al., Mutat. Res. 683 (1-2), 98-105 (2010)

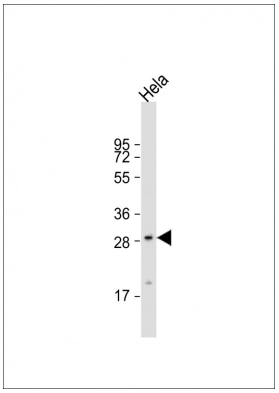
Images



AP9102B staining GCLM in human skeletal muscle tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0. 5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.

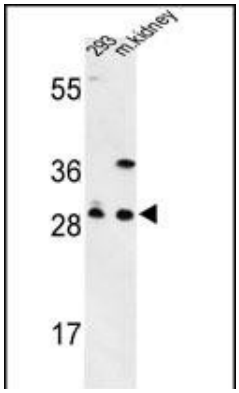


AP9102B staining GCLM in human cervical carcinoma tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0. 5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.

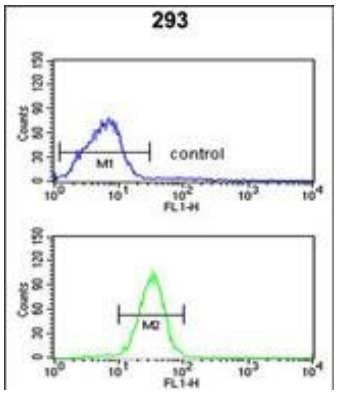


Anti-GCLM Antibody (C-term) at 1:8000 dilution + Hela whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 31 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

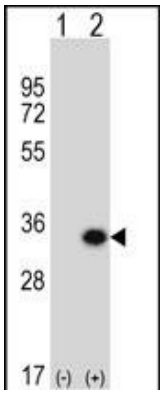
Western blot analysis of GCLM Antibody (C-term) (Cat. #AP9102b) in 293 cell line and mouse kidney tissue lysates (35ug/lane). GCLM (arrow) was detected using the



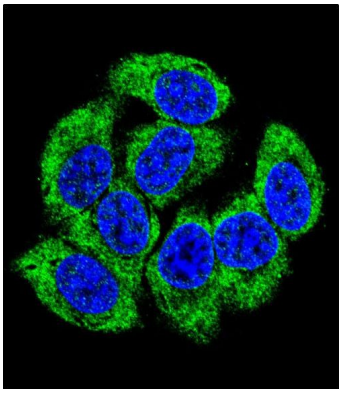
purified Pab.



GCLM Antibody (C-term) (Cat. #AP9102b) flow cytometric analysis of 293 cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



Western blot analysis of GCLM (arrow) using rabbit polyclonal GCLM Antibody (C-term) (Cat. #AP9102b). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the GCLM gene.



Confocal immunofluorescent analysis of GCLM Antibody (C-term)(Cat#AP9102b) with 293 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit lgG (green). DAPI was used to stain the cell nuclear (blue).

Citations

- The protective role of resveratrol in the sodium arsenite-induced oxidative damage via modulation of intracellular GSH homeostasis.