GCLM Rabbit mAb

Catalog No: #49677

Package Size: #49677-1 50ul #49677-2 100ul

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

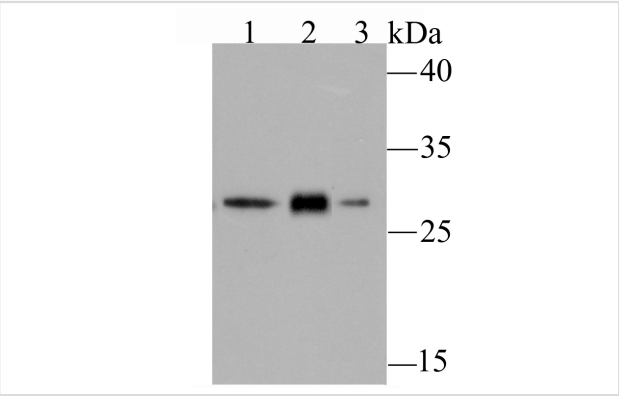
Description

Product Name	GCLM Rabbit mAb
Host Species	Recombinant Rabbit
Clonality	Monoclonal antibody
Purification	ProA affinity purified
Applications	WB, ICC/IF, IHC, FC, IP
Species Reactivity	Human;Mouse;Rat
Immunogen Description	Recombinant protein
Conjugates	Unconjugated
Other Names	Gamma ECS regulatory subunit antibody Gamma-ECS regulatory subunit antibody Gamma-glutamylcysteine synthetase regulatory subunit antibody GCLM antibody GCS light chain antibody GLCLR antibody Glutamate cysteine ligase regulatory subunit antibody Glutamate--cysteine ligase modifier subunit antibody Glutamate--cysteine ligase regulatory subunit antibody GSC light chain antibody GSH0_HUMAN antibody
Accession No.	Swiss-Prot#:P48507
Formulation	1*TBS (pH7.4), 1%BSA, 40%Glycerol. Preservative: 0.05% Sodium Azide.
Storage	Store at -20°C

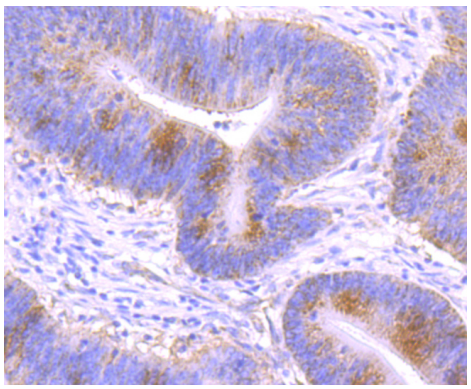
Application Details

WB: 1:500-1:1,000IHC: 1:50-1:100ICC: 1:50-1:200FC: 1:50-1:100

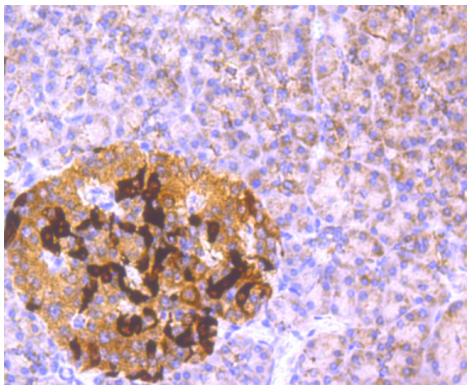
Images



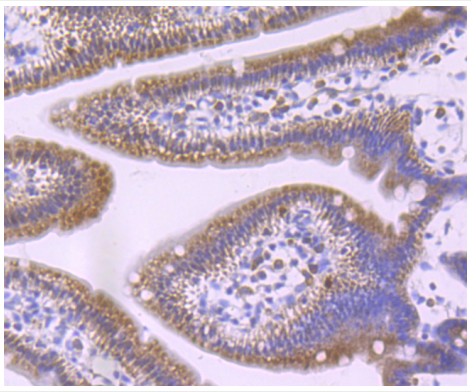
Western blot analysis of GCLM on different cell lysates using anti-GCLM antibody at 1/500 dilution. Positive control: Lane 1: A431 Lane 2: PC-12 Lane 3: NIH-3T3



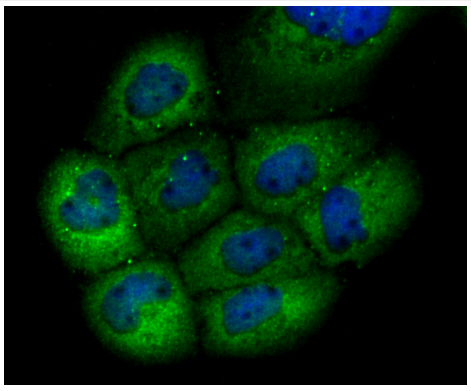
Immunohistochemical analysis of paraffin-embedded human colon cancer tissue using anti-GCLM antibody. Counter stained with hematoxylin.



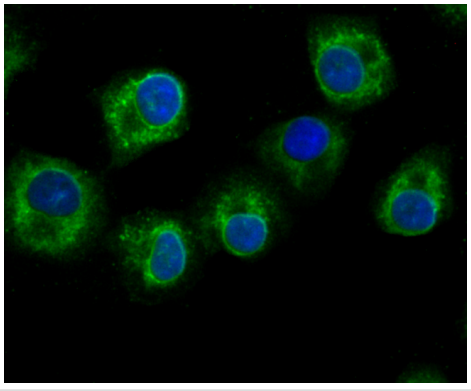
Immunohistochemical analysis of paraffin-embedded human pancreas tissue using anti-GCLM antibody. Counter stained with hematoxylin.



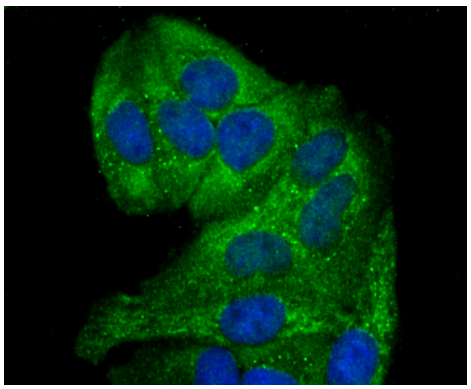
Immunohistochemical analysis of paraffin-embedded mouse small intestine tissue using anti-GCLM antibody. Counter stained with hematoxylin.



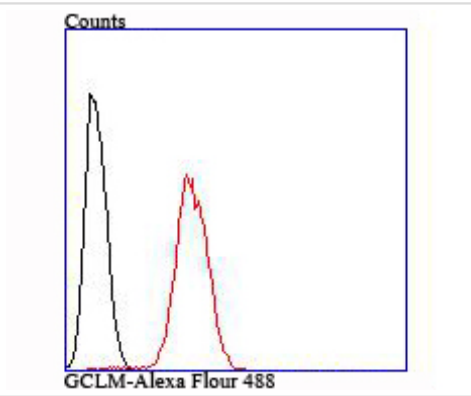
ICC staining GCLM in A431 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



ICC staining GCLM in A549 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



ICC staining GCLM in Hela cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



Flow cytometric analysis of Hela cells with GCLM antibody at 1/100 dilution (red) compared with an unlabelled control (cells without incubation with primary antibody; black).

Background

Gamma-glutamylcysteine synthetase (γ-GCS) is the rate limiting enzyme for glutathione (L-gamma-glutamyl-L-cysteinylglycine, GSH) synthesis. GSH is ubiquitous in mammalian cells as a vital intra- and extracellular protective antioxidant. γ-GCS is a heterodimer of a heavy catalytic subunit and a light regulatory subunit that is responsive to inflammation, phenolic antioxidants, heat shock, oxidants and cytokines. The human gamma-GCS gene encoding the 367 amino acid catalytic subunit maps to chromosome 6p12. The human γ-GCS gene encoding the regulatory subunit maps to chromosome 1p22-p21. The two subunits of γ-GCS form a heterodimeric zinc metalloprotein that gains activity through formation of a reversible disulfide bond.

Published Papers

Ma Zhongying, Sun Jin, Guo Chao, Ju Jia, Qiao Yi, Niu Jing, Zhou Lun, Ren Qian, Wu Qianwen, Wen Aidong, Wang Jingwen el at., Formononetin mitigates alcoholic liver disease by restoring ALDH2 function and inducing ERK1/2β Nrf2 antioxidant signaling, Phytomedicine : international journal of phytotherapy and phytopharmacology, (2025)

PMID:41110354

Note: This product is for in vitro research use only and is not intended for use in humans or animals.