

Basic Information

Product Name	Anti-GCLC Antibody	
Gene Name	GCLC	
Source	Rabbit	
Clonality	Polyclonal	
Isotype	IgG	
Species Reactivity	human, mouse, rat	
Tested Application	WB, IHC, FCM	
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg/ml BSA and 50% glycerol.	
Immunogen	E.coli-derived human GCLC recombinant protein (Position: E437-N637). Human GCLC shares 94% amino acid (aa) sequence identity with both mouse and rat GCLC.	
Concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	73 kDa	
Dilution Ratios	Western blot (WB):	1:500-2000
	Immunohistochemistry (IHC):	1:50-400
	Flow Cytometry (Fixed):	1:50-200
	(Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

Storage

12 months from date of receipt, -20°C as supplied.

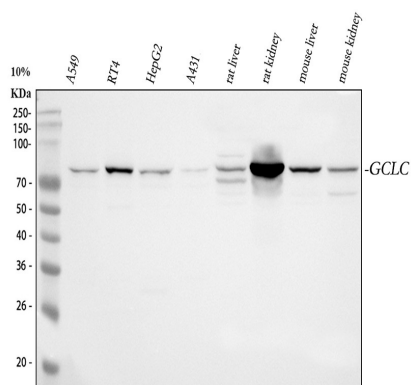
Background Information

GCLC, also named Glutamate--cysteine ligase catalytic subunit, is an enzyme that in humans is encoded by the GCLC gene. 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. The gene encoding the catalytic subunit encodes a protein of 367 amino acids with a calculated molecular weight of 72.773 kDa and maps to chromosome 6p12.1. Deficiency of gamma-glutamylcysteine synthetase in human is associated with enzymopathic hemolytic anemia.

Reference

Anti-GCLC Antibody被引用在4文献中。

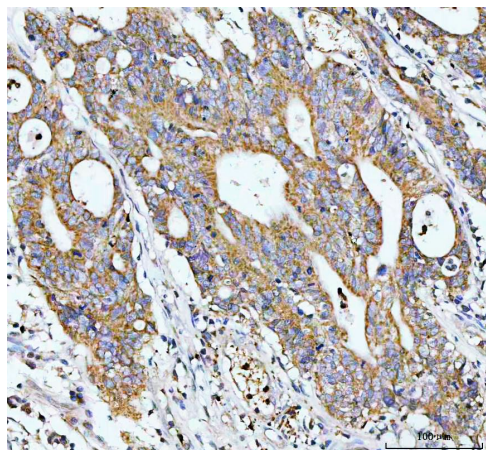
Selected Validation Data



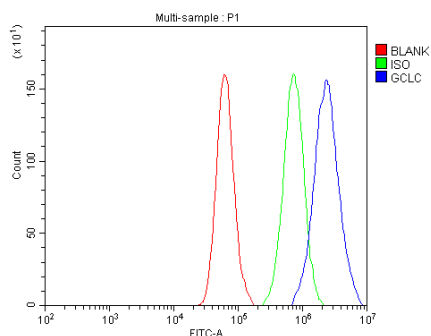
Western blot analysis of GCLC using anti-GCLC antibody (PB9201). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

- Lane 1: human A549 whole cell lysates,
- Lane 2: human RT4 whole cell lysates,
- Lane 3: human HepG2 whole cell lysates,
- Lane 4: human A431 whole cell lysates,
- Lane 5: rat liver tissue lysates,
- Lane 6: rat kidney tissue lysates,
- Lane 7: mouse liver tissue lysates,
- Lane 8: mouse kidney tissue lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-GCLC antigen affinity purified polyclonal antibody (PB9201) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for GCLC at approximately 73 kDa. The expected band size for GCLC is at 73 kDa.



IHC analysis of GCLC using anti-GCLC antibody (PB9201). GCLC was detected in a paraffin-embedded section of human colorectal cancer tissue. The tissue section was incubated with rabbit anti-GCLC Antibody (PB9201) at a dilution of 1:200 and developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB (Catalog # AR1027) as the chromogen.



Flow Cytometry analysis of A549 cells using anti-GCLC antibody (PB9201). Overlay histogram showing A549 cells stained with PB9201 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-GCLC Antibody (PB9201) at 1:100 dilution for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG at 1:100 dilution used under the same conditions. Unlabelled sample (Red line) was also used as a control.