

## Basic Information

<b>Product Name</b>	Anti-GCLC Antibody (Clone#ABBG-7)
<b>Gene Name</b>	GCLC
<b>Source</b>	Rabbit
<b>Clonality</b>	Monoclonal
<b>Isotype</b>	IgG
<b>Species Reactivity</b>	human, rat
<b>Tested Application</b>	WB
<b>Contents</b>	500 ug/ml; Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide, 0.4-0.5 mg/ml BSA and 50% glycerol.
<b>Immunogen</b>	A synthesized peptide derived from human GCLC
<b>Concentration</b>	500 ug/ml
<b>Purification</b>	Affinity-chromatography
<b>Observed MW</b>	73 kDa
<b>Dilution Ratios</b>	Western blot (WB):1:500-2000

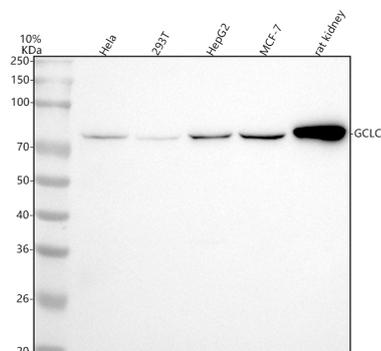
## Storage

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.

## Selected Validation Data



Western blot analysis of anti-GCLC antibody (BM5107). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human HeLa whole cell lysates,

Lane 2: human 293T whole cell lysates,

Lane 3: human HepG2 whole cell lysates,

Lane 4: human MCF-7 whole cell lysates,

Lane 5: rat kidney tissue lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-GCLC antigen affinity purified monoclonal antibody (BM5107) 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.