



# Rabbit Anti-GCLC polyclonal antibody (DCABH-7348)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

<b>Target</b>	GCLC
<b>Immunogen</b>	Synthetic peptide corresponding to internal region of rat heavy subunit of GCS protein.
<b>Isotype</b>	IgG
<b>Source/Host</b>	Rabbit
<b>Species Reactivity</b>	Human
<b>Purification</b>	Immunoaffinity purified
<b>Conjugate</b>	Unconjugated
<b>Applications</b>	IHC-P, WB
<b>Molecular Weight</b>	73 kDa
<b>Cellular Localization</b>	Cytoplasm
<b>Positive Control</b>	Kidney, Testis
<b>Format</b>	Liquid
<b>Buffer</b>	PBS, 1% BSA, pH 7.6
<b>Preservative</b>	< 0.1% Sodium Azide
<b>Storage</b>	2-8°C. Do not freeze. The user must validate any other storage conditions. When properly stored, the reagent is stable to the date indicated on the label. Do not use the reagent beyond the expiration date.

# BACKGROUND

## Introduction

Gamma Glutamylcystuene Synthetase (GSH) is the first enzyme and rate limiting step in the glutathione biosynthesis pathway. Glutathione (GSH) plays an important role in detoxification of oxidants and toxins from the cells. In most cells, GSH is synthesized denovo in two steps catalysed by Gamma Glutamylcysteine Synthetase (GCS) / Glutamate-cystein Ligase and GSH homeostasis. It is composed of two subunits: heavy and light. These subunits are coded by different genes which are controlled by different mechanisms. The heavy subunit carries the catalytic activity and can be inhibited through feedback mechanism by GSH. Binding of light subunit to heavy subunit reduces the Michaelis-Menten constant for glutamate to a physiological concentration of 1.2mM and increases the inhibitory constant for GSH.

## Keywords

GCLC;glutamate-cysteine ligase, catalytic subunit;glutamate--cysteine ligase catalytic subunit;gamma-ECS;GCS heavy chain;gamma-glutamylcysteine synthetase;Glutamylcysteine gamma synthetase light chain;Glc;MGC93096

# GENE INFORMATION

## Entrez Gene ID

[2724](#)