Recombinant Human GCLC

Cat. No. GCLC-28159TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full length Human GCLC with a proprietary tag; Predicted MWt 96.14.
Species	Human
Source	Wheat Germ
ProteinLength	637 amino acids
Description	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. This locus encodes the catalytic subunit, while the regulatory subunit is derived from a different gene located on chromosome 1p22-p21. Mutations at this locus have been associated with hemolytic anemia due to deficiency of gamma-glutamylcysteine synthetase and susceptibility to myocardial infarction.
Molecular Weight	96.140kDa inclusive of tags
Biological activity	useful for Antibody Production and Protein Array
Form	Liquid
Purity	Proprietary Purification
Storage buffer	pH: 8.00Constituents:0.79% Tris HCl, 0.31% GlutathioneNote: Glutathione is reduced

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Storage	Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
Sequence Similarities	Belongs to the glutamate--cysteine ligase type 3 family.

GENE INFORMATION

Gene Name	GCLC glutamate-cysteine ligase, catalytic subunit [Homo sapiens]
Official Symbol	GCLC
Synonyms	GCLC; glutamate-cysteine ligase, catalytic subunit; GLCL, GLCLC; glutamate--cysteine ligase catalytic subunit; GCS;
Gene ID	2729
mRNA Refseq	NM_001197115
Protein Refseq	NP_001184044
MIM	606857
Uniprot ID	P48506
Chromosome Location	6p12
Pathway	Biological oxidations, organism-specific biosystem; Glutathione biosynthesis, glutamate => glutathione, organism-specific biosystem; Glutathione biosynthesis, glutamate => glutathione, conserved biosystem;

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Function	ADP binding; ATP binding; coenzyme binding; glutamate binding; glutamate-cysteine ligase activity;

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