

Recombinant Full Length Human GCLC Protein, GST-tagged

Cat. No. GCLC-5174HF **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Human GCLC full-length ORF (NP_001489.1, 1 a.a. - 637 a.a.) recombinant protein with GST-tag at N-terminal.
Species	Human
Source	In Vitro Cell Free System
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. 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 6. The regulatory subunit is derived from a different gene located on chromosome 1p22-p21. Deficiency of gamma-glutamylcysteine synthetase in human is associated with enzymopathic hemolytic anemia. [provided by RefSeq
Molecular Mass	99.2 kDa
AA Sequence	MGLLSQGSPLSWEETKRHADHVRRHGILQFLHIYHAVKDRHKDVLKWGDEVEYMLV SFDHENKKVRLVLSGEKVLETLQEKGERTNPNHPTLWRPEYGSYMIEGTPGQPYG GTMSEFNTVEANMRKRRKEATSILEENQALCTITSFPRLGCPGFTLPEVKPNPVEGG ASKSLFFPDEAINKHPRFSTLTRNIRHRRGEKVVINVPFKDKNTPSPFIETFTEDDEA SRASKPDHIYMDAMGFGMGNCCLQVTFQACSISEARYLYDQLATICPIVMALSAASP

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FYRGYVSDIDCRWGVISASVDDRTREERGLEPLKNNNYRISKSRYSIDSYLSKCGE
 KYNDIDLTIDKEIYEQLLQEGIDHLLAQHVAHLFIRDPLTLFEEKIHLDDANESDHFENI
 QSTNWQTMRFKPPPPNSDIGWRVEFRPMEVQLTDFENSAYVVFVLLTRVILSYKL
 DFLIPLSKVDENMKVAQKRDAVLQGMFYFRKDICKGGNAVVDGCGKAQNSTELAAE
 EYTLMSIDTIINGKEGVFPGLIPILNSYLENMEVDVDTRCSILNYLKLKKRASGELMTV
 ARWMREFIANHPDYKQDSVITDEMNYSLILKCNQIANELCECPPELLGSAFRKVKYSG
 SKTDSSN

Applications

Enzyme-linked Immunoabsorbent Assay
 Western Blot (Recombinant protein)
 Antibody Production
 Protein Array

Notes

Best use within three months from the date of receipt of this protein.

Storage

Store at -80 centigrade. Aliquot to avoid repeated freezing and thawing.

Storage Buffer

50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.

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; gamma-ECS; GCS heavy chain; gamma-
 glutamylcysteine synthetase; GCL; GLCL; GLCLC;

Gene ID

2729

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mRNA Refseq	NM_001197115
Protein Refseq	NP_001184044
MIM	606857
UniProt ID	P48506

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