

# Recombinant Human Glutamate-Cysteine Ligase, Modifier Subunit, His-tagged

**Cat. No.** GCLM-2522H    **Lot. No.** (See product label)

## SPECIFICATION

<b>Product Overview</b>	Recombinant human GCLM protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>ProteinLength</b>	1-274aa
<b>Description</b>	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. Gamma glutamylcysteine synthetase deficiency has been implicated in some forms of hemolytic anemia.
<b>Form</b>	Liquid. 20mM Tris-HCl buffer (pH8.0) containing 10% glycerol, 0.15M NaCl.
<b>Molecular Mass</b>	33.3kDa (298aa), confirmed by MALDI-TOF
<b>AA Sequence</b>	MGSSHHHHHH SSGLVPRGSH MGSHTMGDTSR AAKALLARAR TLHLQTGNLL NWGRLRKKCP STHSEELHDC IQKTLNEWSS QINPDLVREF PDVLECTVSH AVEKINPDER EEMKVS AKLF IVESNSSSST RSAVDMACSV LGVAQLDSVI IASPPIEDGV NLSLEHLQPY WEELENLVQS KKIVAIGTSD LDKTQLEQLY QWAQVKPNSN QVNLASCCVM PPDLTAFKQ FDIQLLTHND PKELLSEASF

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QEALQESIPD IQAHEWVPLW LLRYSVIVKS RGIKSKGYI LQAKRRGS

**Purity** >90% by SDS - PAGE

**Applications** SDS-PAGE

**Storage** Can be stored at 4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

**Concentration** 1 mg/ml (determined by Bradford assay)

## GENE INFORMATION

**Gene Name** [GCLM glutamate-cysteine ligase, modifier subunit \[ Homo sapiens \]](#)

**Official Symbol** GCLM

**Synonyms** GCLM; glutamate-cysteine ligase, modifier subunit; GLCLR; glutamate--cysteine ligase regulatory subunit; gamma glutamylcysteine synthetase; GCS light chain; GSC light chain; gamma-ECS regulatory subunit; glutamate--cysteine ligase modifier subunit; glutamate-cysteine ligase regulatory protein; gamma-glutamylcysteine synthetase regulatory subunit; glutamate-cysteine ligase (gamma-glutamylcysteine synthetase), regulatory (30.8kD);

**Gene ID** [2730](#)

**mRNA Refseq** [NM\\_002061](#)

**Protein Refseq** [NP\\_002052](#)

**MIM** [601176](#)

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<b>UniProt ID</b>	P48507
<b>Chromosome Location</b>	1p21
<b>Pathway</b>	Biological oxidations, organism-specific biosystem; Glutathione biosynthesis, glutamate => glutathione, organism-specific biosystem; Glutathione biosynthesis, glutamate => glutathione, conserved biosystem; Glutathione conjugation, organism-specific biosystem; Glutathione metabolism, organism-specific biosystem;
<b>Function</b>	contributes_to glutamate-cysteine ligase activity; contributes_to glutamate-cysteine ligase activity; glutamate-cysteine ligase catalytic subunit binding; protein heterodimerization activity;

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