



Recombinant Human Glutamate--cysteine ligase catalytic subunit (GCLC)

Product Code	CSB-MP009321HU
Storage	Store at -20°C, for extended storage, conserve at -20°C or -80°C.
Uniprot No.	P48506
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	≥85% (SDS-PAGE)
Sequence	MGLLSQGSPL SWEETKRHAD HVRRHGILQF LHIYHAVKDR HKDVLKWGDE VEYMLVSFDH ENKKVRLVLS GEKVLETLQE KGERTNPNHP TLWRPEYGSY MIEGTPGQPY GGTMSEFNTV EANMRKRRKE ATSILEENQA LCTITSFPRL GCPGFTLPEV KPNPVEGGAS KSLFFPDEAI NKHPRFSTLT RNIRHRRGEK VVINVPFKD KNTSPFIET FTEDDEASRA SKPDHIYMDA MGFGMGNCL QVTFQAC SIS EARYLYDQLA TICPIVMALS AASPFYRGYV SDIDCRWGI SASVDDRTRE ERGLEPLKNN NYRISKSRD SIDSYLSKCG EKYNDIDLTI DKEIYEQLLQ EGIDHLLAQH VAHLFIRDPL TLFEEKIHL D DANESDH FEN IQSTNWQTMR FKPPPPNSDI GWRVEFRPME VQLTDFENSA YVVFVLLTR VILSYKLDLFIPLSKVDENM KVAQKRDAVL QGMFYFRKDI CKGGNAVVDG CGKAQNSTEL AAEEYTLMSI DTIINGKEGV FPGLIPILNS YLENMEVDVD TRCSILNYLK LIKKRASGEL MVARWREF IANHPDYKQD SVITDEM NYS LILKCNQIAN ELCEPELLG SAFRKVKYSG SKTDSSN
Source	Mammalian cell
Target Names	GCLC
Protein Names	Recommended name: Glutamate--cysteine ligase catalytic subunit EC= 6.3.2.2 Alternative name(s): GCS heavy chain Gamma-ECS Gamma-glutamylcysteine synthetase
Expression Region	1-637
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	Tag type will be determined during the manufacturing process.
Protein Length	Full length protein
Target Details	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.



Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.

Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.