Recombinant Human 2-amino-3-ketobutyrate coenzyme A ligase, mitochondrial (GCAT)

Product Code	CSB-MP009308HU
Storage	Store at -20°C, for extended storage, conserve at -20°C or -80°C.
Uniprot No.	O75600
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	>85% (SDS-PAGE)
Sequence	SALAQLRGI LEGELEGIRG AGTWKSERVI TSRQGPHIRV DGVSGGILNF CANNYLGLSS HPEVIQAGLQ ALEEFGAGLS SVRFICGTQS IHKNLEAKIA RFHQREDAIL YPSCYDANAG LFEALLTPED AVLSDELNHA SIIDGIRLCK AHKYRYRHLD MADLEAKLQE AQKHRLRLVA TDGAFSMDGD IAPLQEICCL ASRYGALVFM DECHATGFLG PTGRGTDELL GVMDQVTIIN STLGKALGGA SGGYTTGPGP LVSLLRQRAR PYLFSNSLPP AVVGCASKAL DLLMGSNTIV QSMAAKTQRF RSKMEAAGFT ISGASHPICP VMLGDARLAS RMADDMLKRG IFVIGFSYPV VPKGKARIRV QISAVHSEED IDRCVEAFVE VGRLHGALP
Source	Mammalian cell
Target Names	GCAT
Protein Names	Recommended name: 2-amino-3-ketobutyrate coenzyme A ligase, mitochondrial Short name= AKB ligase EC= 2.3.1.29 Alternative name(s): Aminoacetone synthase Glycine acetyltransferase
Expression Region	22-419
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 of Mature Protein
Target Details	The degradation of L-threonine to glycine consists of a two-step biochemical pathway involving the enzymes L-threonine dehydrogenase and 2-amino-3-ketobutyrate coenzyme A ligase. L-Threonine is first converted into 2-amino-3-ketobutyrate by L-threonine dehydrogenase. This gene encodes the second enzyme in this pathway, which then catalyzes the reaction between 2-amino-3-ketobutyrate and coenzyme A to form glycine and acetyl-CoA. The encoded enzyme is considered a class II pyridoxal-phosphate-dependent aminotransferase.
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.