

# Recombinant Human glycine C-acetyltransferase, His-tagged

Cat. No. GCAT-567H Lot. No. (See product label)

## SPECIFICATION

<b>Product Overview</b>	GCAT, 22-419aa , Human, His tag, E.coli
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>ProteinLength</b>	22-419 a.a.
<b>Description</b>	<p>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. GCAT is 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 enzyme is considered a class II pyridoxal-phosphate-dependent aminotransferase. Recombinant human GCAT protein, fused to His-tag at N-terminus, was expressed in E.coli.</p>
<b>Form</b>	Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 0.4M urea, 10% glycerol
<b>Molecular Mass</b>	45.0kDa (419aa)
<b>AA Sequence</b>	<p>MGSSHHHHHH SSGLVPRGSH MSALAQLRGI LELEGIRG AGTWKSERVI          TSRQGPHIRV DGVSGGILNF CANNYLGLSS HPEVIQAGLQ ALEEFGAGLS          SVRFICGTQS IHKNLEAKIA RFHQREDAIL YPSCYDANAG LFEALLTPED          AVLSDELNHA SIIDGIRLCK AHKYRYRHLD MADLEAKLQE AQKHRLRLVA</p>

Tel: 1-631-559-9269 1-516-512-3133

Email: [info@creative-biomart.com](mailto:info@creative-biomart.com) Fax: 1-631-938-8127

45-1 Ramsey Road, Shirley, NY 11967, USA

TDGAFSMDGD IAPLQEICCL ASRYGALVFM DECHATGFLG PTGRGTDELL  
 GVMDQVTIIN STLGKALGGA SGGYTTGPGP LVSLLRQRAR PYLFSNSLPP  
 AVVGCASKAL DLLMGSNTIV QSMAAKTQRF RSKMEAAGFT ISGASHPICP  
 VMLGDARLAS RMADDMLKRG IFVIGFSYPV VPKGKARIRV QISAVHSEED  
 IDRCVEAFVE VGRLHGALP

**Purity** >85% by SDS - PAGE

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

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

## GENE INFORMATION

**Gene Name** [GCAT glycine C-acetyltransferase \[ Homo sapiens \]](#)

**Official Symbol** GCAT

**Synonyms** GCAT; glycine C-acetyltransferase; glycine C acetyltransferase (2 amino 3 ketobutyrate coenzyme A ligase); 2-amino-3-ketobutyrate coenzyme A ligase, mitochondrial; 2 amino 3 ketobutyrate coenzyme A ligase; KBL; AKB ligase; aminoacetone synthase; glycine acetyltransferase; 2-amino-3-ketobutyrate-CoA ligase; MGC23053;

**Gene ID** [23464](#)

**mRNA Refseq** [NM\\_001171690](#)

**Protein Refseq** [NP\\_001165161](#)

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

<b>MIM</b>	607422
<b>UniProt ID</b>	O75600
<b>Chromosome Location</b>	22q13.1
<b>Pathway</b>	Glycine, serine and threonine metabolism, organism-specific biosystem; Glycine, serine and threonine metabolism, conserved biosystem; threonine degradation II, organism-specific biosystem;
<b>Function</b>	glycine C-acetyltransferase activity; pyridoxal phosphate binding; transferase activity, transferring acyl groups; transferase activity, transferring nitrogenous groups;

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA