

# Recombinant human GATM protein

Catalog Number: ATGP1438

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

38-423aa

### UniProt No.

P50440

### NCBI Accession No.

NP\_001473

### Alternative Names

glycine amidinotransferase mitochondrial, glycine amidinotransferase, mitochondrial, AGAT, AT

## PRODUCT SPECIFICATION

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### Molecular Weight

46.9 kDa (410aa) confirmed by MALDI-TOF (Molecular weight on SDS-PAGE will appear higher)

### Concentration

1mg/ml (determined by Bradford assay)

### Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 2mM DTT, 10% glycerol, 200mM NaCl

### Purity

> 90% by SDS-PAGE

### Tag

His-Tag

### Application

SDS-PAGE

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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### Description

GATM (Glycine amidinotransferase, mitochondrial) is a mitochondrial enzyme that belongs to the amidinotransferase family. This enzyme is involved in creatine biosynthesis, whereby it catalyzes the transfer of a guanido group from L-arginine to glycine, resulting in guanidinoacetic acid, the immediate precursor of creatine. Creatine plays a vital role in energy metabolism in muscle tissues. It plays a role in embryonic and central nervous system development. Recombinant human GATM protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

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## Amino acid Sequence

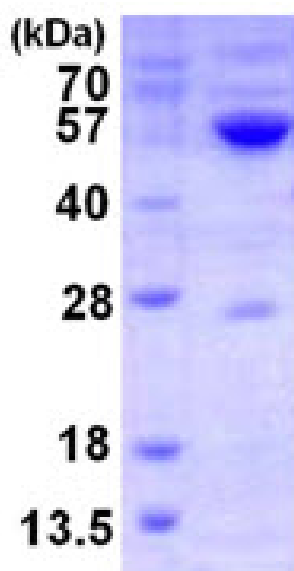
MGSSHHHHHH SSSLVPRGSH MGSMSSTQAAT ASSRNSCAAD DKATEPLPKD CPVSSYNEWD PLEEVIVGRA ENACVPPFTI  
EVKANTYEKY WPFYQKQGGH YFPKDHLKKA VAEIEEMCNI LKTEGVTVRR PDPIDWSLKY KTPDFESTGL YSAMPRDILI  
VVGNEIIEAP MAWRSRFFEY RAYRSIIKDY FHRGAKWTTA PKPTMADELY NQDYPIHSVE DRHKLAAQGK FVTTEFEP  
DAADFIRAGR DIFAQRSQVT NYLGIEMMRR HLPDYRVHI ISFKDPNPMH IDATFNIIGP GIVLSNPDRP CHQIDLFKKA  
GWTIITPPTP IIPDDHPLWM SSKWLSMNVL MLDEKRMVVD ANEVPIQKMF EKLGITTIKV NIRNANSLGG GFHCWTCDVR  
RRGTLQSYLD

## General References

Schulze A (2003). Mol. Cell. Biochem. 244 (1-2): 143-50.  
Cullen M.E., Et al. (2006) Circulation 114:116-120

## DATA

### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

15% SDS-PAGE (3ug)