

## Product datasheet

# Recombinant Human GATM protein ab123149

1 Image

### Overview

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<b>Product name</b>	Recombinant Human GATM protein
<b>Protein length</b>	Full length protein

### Description

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<b>Nature</b>	Recombinant
<b>Source</b>	Escherichia coli
<b>Amino Acid Sequence</b>	
<b>Accession</b>	<a href="#">P50440</a>
<b>Species</b>	Human
<b>Sequence</b>	<p>MGSSHHHHHHSSGLVPRGSHMGSMSTQAATASSRNSCAADDKATEPLPKD            CPVSSYNEWDPLEEVIVGRAENACVPPFTIEVKANTYEKYWPFYQKQGGH            YFPKDHLKKAVAEIEEMCNILKTEGVTVRRPDPIDWSLKYKTPDFESTGL            YSAMP RDILIVVGN EIEAPMAWRSRFFEYRAYRSIIKDYFHRGAKWTTA            PKPTMADELYNQDYPIHSVEDRHKLAAQGKFVTTEFEPCFDAADFIRAGR            DIFAQRSQVTNYLGI EWRRHLAPDYRVHII SFKDPNPMHIDATFNIIGP            GIVLSNPDRPCHQIDL FKKAGWTIITPPTPIIPDDHPLWMSSKWL SMNVL            MLDEKRVMDANEVPIQKMF EKLGITTIKVNIRNANSLGGGFHCWTC DVR            RRGTLQSYLD</p>
<b>Molecular weight</b>	47 kDa including tags
<b>Amino acids</b>	38 to 423
<b>Tags</b>	His tag N-Terminus

### Specifications

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Our [Abpromise guarantee](#) covers the use of **ab123149** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<b>Applications</b>	<p>SDS-PAGE</p> <p>Mass Spectrometry</p>
<b>Mass spectrometry</b>	MALDI-TOF
<b>Purity</b>	<p>&gt; 90 % SDS-PAGE.</p> <p>ab123149 was purified using conventional chromatography.</p>
<b>Form</b>	Liquid

## Preparation and Storage

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### Stability and Storage

Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

pH: 8.00

Constituents: 0.03% DTT, 0.32% Tris HCl, 10% Glycerol, 1.17% Sodium chloride

## General Info

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### Function

Catalyzes the biosynthesis of guanidinoacetate, the immediate precursor of creatine. Creatine plays a vital role in energy metabolism in muscle tissues. May play a role in embryonic and central nervous system development. May be involved in the response to heart failure by elevating local creatine synthesis.

### Tissue specificity

Expressed in brain, heart, kidney, liver, lung, salivary gland and skeletal muscle tissue, with the highest expression in kidney. Biallelically expressed in placenta and fetal tissues.

### Pathway

Amine and polyamine biosynthesis; creatine biosynthesis; creatine from L-arginine and glycine: step 1/2.

### Involvement in disease

Defects in GATM are the cause of arginine:glycine amidinotransferase deficiency (AGAT deficiency) [MIM:612718]. AGAT deficiency is an autosomal recessive disorder characterized by developmental delay/regression, mental retardation, severe disturbance of expressive and cognitive speech, and severe depletion of creatine/phosphocreatine in the brain.

### Sequence similarities

Belongs to the amidinotransferase family.

### Domain

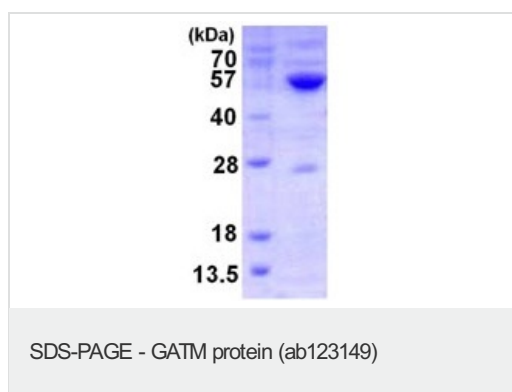
One chain folds into a compact single domain composed of repeating units, five beta-beta-alpha-beta modules, which surround the central active site.

### Cellular localization

Mitochondrion inner membrane. Cytoplasm. The mitochondrial form is found in the intermembrane space probably attached to the outer side of the inner membrane.

## Recombinant Human GATM protein images

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15% SDS PAGE, 3 µg of ab123149 loaded.

**Please note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

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- Replacement or refund for products not performing as stated on the datasheet
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- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

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