Recombinant human GATM protein

Catalog Number: ATGP1438

PRODUCT INFORMATION

Expression system
E.coli

Domain
38-423aa

UniProt No.
P50440

NCBI Accession No.
NP_001473.1

Alternative Names
glycine amidinotransferase mitochondrial, glycine amidinotransferase, mitochondrial, AGAT, AT

PRODUCT SPECIFICATION

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
> 85% 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

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

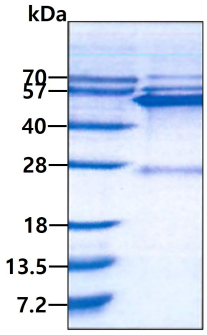
<MGSSHHHHHH SSGLVPRGSH MGSM>STQAAT ASSRNSCAAD DKATEPLPKD CPVSSYNEWD PLEEVIVGRA ENACVPPFTI EVKANTYEKY WPFYQKQGGH YFPKDHLKKA VAEIEEMCNI LKTEGVTVRR PDPIDWSLKY KTPDFESTGL YSAMPRDILI VVGNEIIEAP MAWRSRFFEY RAYRSIIKDY FHRGAKWTTA PKPTMADELY NQDYPIHSVE DRHKLAAQGK FVTTEFEPCF DAADFIRAGR DIFAQRSQVT NYLGIEWMRR HLAPDYRVHI ISFKDPNPMH IDATFNIIGP GIVLSNPDRP CHQIDLFKKA GWTIITPPTP IIPDDHPLWM SSKWLSMNVL MLDEKRVMVD 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:I16-I20

DATA

SDS-PAGE



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