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GATM Human

Catalog #:ENPS-590

For research use only.

Description:GATM Human Recombinant produced in E.coli is a single, non-glycosylated polypeptide chain containing 410 amino acids (38-423) and having a molecular mass of 46.9kDa (Molecular size on SDS-PAGE will appear higher).GATM is fused to a 24 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

Synonyms: Glycine amidinotransferase, mitochondrial, L-arginine:glycine amidinotransferase, Transamidinase, GATM, AGAT, AT.

Source:E.coli.

Physical Appearance: Sterile Filtered colorless solution.

Amino Acid Sequence:MGSSHHHHHH SSGLVPRGSH MGSMSTQAAT ASSRNSCAAD DKATEPLPKD CPVSSYNEWD PLEEVIVGRA ENACVPPFTI EVKANTYEKY WPFYQKQGGH YFPKDHLKKA VAEIEEMCNI LKTEGVTVRR PDPIDWSLKY KTPDFESTGL YSAMPRDILI VVGNEIIEAP MAWRSRFFEYRAYRSIIKDY FHRGAKWTTA PKPTMADELY NQDYPIHSVE DRHKLAAQGK FVT

Purity: Greater than 90% as determined by SDS-PAGE.

Formulation:
The GATM solution (1mg/ml) contains 20mM Tris-HCl buffer (pH 8.0), 2mM DTT, 10% glycerol and 200mM NaCl.

Stability:
Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).Avoid multiple freeze-thaw cycles.

Usage:
NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drµgs, agricultural or pesticidal products, food additives or household chemicals.

Introduction:
Glycine amidinotransferase mitochondrial (GATM) is a mitochondrial enzyme which is a member of the amidinotransferase family. The GATM enzyme is involved in creatine biosynthesis, where it catalyzes the transfer of a guanido group from L-arginine to glycine, resulting in guanidinoacetic acid, the immediate precursor of creatine, which has an imperative role in energy metabolism in muscle tissues. GATM is significant in embryonic and central nervous system development. GATM gene mutations cause arginine:glycine amidinotransferase deficiency, an inborn error of creatine synthesis characterized by mental retardation, language impairment, and behavioral disorders.

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