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GATM Antibody(C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP19715b

Specification

GATM Antibody(C-term) - Product Information

Application	**WB,E**
Primary Accession	P50440
Other Accession	P50442, P50441, Q9D964, Q4R806, Q2HJ74, NP_001473.1
Reactivity	**Human**
Predicted	**Bovine, Monkey, Mouse, Pig, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**48455**
Antigen Region	**350-378**

GATM Antibody(C-term) - Additional Information

Gene ID 2628

Other Names
Glycine amidinotransferase, mitochondrial, L-arginine:glycine amidinotransferase, Transamidinase, GATM, AGAT

Target/Specificity
This GATM antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 350-378 amino acids from the C-terminal region of human GATM.

Dilution
WB~~1:1000

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
GATM Antibody(C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

GATM Antibody(C-term) - Protein Information

Name GATM

Synonyms AGAT

Function Transamidinase that catalyzes the transfer of the amidino group of L-arginine onto the amino moiety of acceptor metabolites such as glycine, beta-alanine, gamma-aminobutyric acid (GABA) and taurine yielding the corresponding guanidine derivatives (PubMed:3800397, PubMed:16820567, PubMed:36543883, PubMed:27233232). Catalyzes the rate- limiting step of creatine biosynthesis, namely the transfer of the amidino group from L-arginine to glycine to generate guanidinoacetate, which is then methylated by GAMT to form creatine. Provides creatine as a source for ATP generation in tissues with high energy demands, in particular skeletal muscle, heart and brain (PubMed:3800397, PubMed:36543883, PubMed:9266688, PubMed:27233232) (Probable).

Cellular Location
[Isoform 1]: Mitochondrion inner membrane; Peripheral membrane protein; Intermembrane side. Note=Probably attached to the outer side of the inner membrane

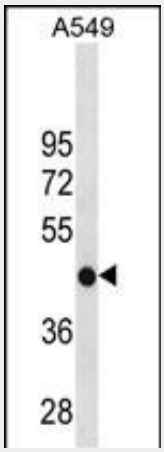
Tissue Location
Expressed in brain, heart, kidney, liver, lung, salivary gland and skeletal muscle tissue, with the highest expression in kidney. Biallelically expressed in placenta and fetal tissues

GATM Antibody(C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

GATM Antibody(C-term) - Images



GATM Antibody (C-term) (Cat. #AP19715b) western blot analysis in A549 cell line lysates (35ug/lane).This demonstrates the GATM antibody detected the GATM protein (arrow).

GATM Antibody(C-term) - Background

This gene encodes 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. Mutations in this gene cause arginine:glycine amidinotransferase deficiency, an inborn error of creatine synthesis characterized by mental retardation, language impairment, and behavioral disorders.

GATM Antibody(C-term) - References

Kottgen, A., et al. Nat. Genet. 42(5):376-384(2010)
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Lion-Francois, L., et al. Neurology 67(9):1713-1714(2006)
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Battini, R., et al. J. Pediatr. 148(6):828-830(2006)