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Product datasheet for RG200474

GATM (NM_001482) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GATM (NM_001482) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GATM
Synonyms:	AGAT; AT; CCDS3; FRTS1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>RG200474 representing NM_001482
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCTGCGGGTGCGGTGTCTGCGCGGCGGGAGCCGCGGCGCCGAGGCGGTGCACTACATCGGATCTCGGC
TTGGACGAACCTTGACAGGATGGGTGCAGCGAACTTTCCAGAGCACCCAGGCAGCTACGGCTTCCTCCCG
GAACTCCTGTGCAGCTGACGACAAAGCCACTGAGCCTCTGCCCAAGGACTGCCCTGTCTCTTCTTACAAC
GAATGGGACCCCTTAGAGGAAGTGATAGTGGGCAGAGCAGAAAACGCCTGTGTTCCACCGTTCACCATCG
AGGTGAAGGCCAACACATATGAAAAGTACTGGCCATTTTACCAGAAGCAAGGAGGGCATTATTTTCCCAA
AGATCATTTGAAAAAGGCTGTTGCTGAAATTGAAGAAATGTGCAATATTTTAAAAACGGAAGGAGTGACA
GTAAGGAGGCCTGACCCCATTGACTGGTCATTGAAGTATAAAACTCCTGATTTTGAGTCTACGGGTTTAT
ACAGTGCAATGCCTCGAGACATCCTGATAGTTGTGGGCAATGAGATTATCGAGGCTCCCATGGCATGGCG
TTCACGCTTCTTTGAGTACCGAGCGTACAGGTCAATTATCAAAGACTACTTCCACCGTGGCGCCAAGTGG
ACAACAGCTCCTAAGCCCACAATGGCTGATGAGCTTTATAACCAGGATTATCCCATCCACTCTGTAGAAG
ACAGACACAAATTGGCTGCTCAGGGAAAATTTGTGACAACTGAGTTTGAGCCATGCTTTGATGCTGCTGA
CTTCATTCGAGCTGGAAGAGATATTTTTGCACAGAGAAGCCAGGTTACAAACTACCTAGGCATTGAATGG
ATGCGTAGGCATCTTGCTCCAGACTACAGAGTGCATATCATCTCCTTTAAAGATCCCAATCCCATGCATA
TTGATGCTACCTTCAACATCATTGGACCTGGTATTGTGCTTTCCAACCCTGACCGACCATGTCACCAGAT
TGATCTTTTCAAGAAAGCAGGATGGACTATCATTACTCCTCCAACACCAATCATCCCAGACGATCATCCA
CTCTGGATGTCATCCAAATGGCTTTCCATGAATGTCTTAATGCTAGATGAAAAACGTGTTATGGTGGATG
CCAATGAAGTTCCAATTCAAAAGATGTTTGAAAAGCTGGGTATCACTACCATTAAAGTTAACATTCGTAA
TGCCAATTCCCTGGGAGGAGGCTTCCATTGCTGGACCTGCGATGTCCGGCGCCGAGGCACCTTACAGTCC
TACTTGGAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

View online »

Protein Sequence:

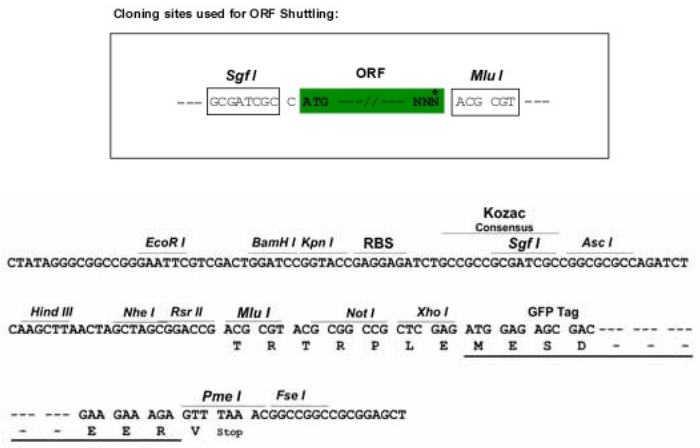
>RG200474 representing NM_001482
Red=Cloning site Green=Tags(s)

MLRVRCLRGGSRGAEAVHYIGSRLGRTLTGWVQRTFQSTQAATASSRNSCAADDKATEPLPKDCPVSSYN
EWDPLEEVIVGRAENACVPPFTIEVKANTYEKYWPFYQKQGGHYFPKDHLKKAVAEIEEMCNILKTEGVT
VRRPDPIDWSLKYKTPDFESTGLYSAMPRDILIVVGNEIIEAPMAWRSRFFEYRAYRSIIKDYFHRGAKW
TTAPKPTMADELYNQDYPIHSVEDRHKLAAQGKFVTTEFEPCFDAADFIRAGRDIFAQRSQVTNYLGIEW
MRRHLAPDYRVHIISFKDPNPMHIDATFNIIGPGIVLSNPDRPCHQIDLFKKAGWTIITPPTPIIPDDHP
LWMSSKWLSMNVLMLDEKRVMVDANEVPIQKMFEKLGITTIKVNIRNANSLGGGFHCWTCDVRRRGTLQS
YLD

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001482

ORF Size: 1269 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: NM_001482.3

RefSeq Size: 2602 bp

RefSeq ORF: 1272 bp

Locus ID: 2628

UniProt ID: P50440

Cytogenetics: 15q21.1

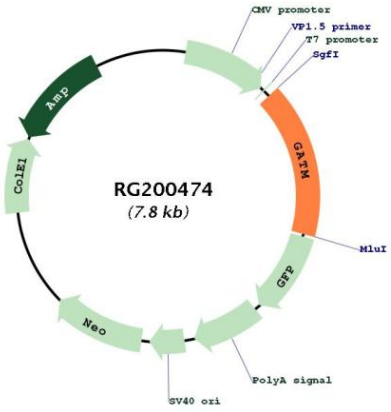
Domains: Amidinotransf

Protein Families: Druggable Genome

Protein Pathways: Arginine and proline metabolism, Glycine, serine and threonine metabolism, Metabolic pathways

Gene Summary: 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 cognitive disability, language impairment, and behavioral disorders. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG200474