OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RG216741

GAMT (NM_138924) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GAMT (NM_138924) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GAMT
Synonyms:	CCDS2; HEL-S-20; PIG2; TP53I2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>RG216741 representing NM_138924
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAGCGCCCCCAGCGCGACCCCCATCTTCGCGCCCGGCGAGAACTGCAGCCCCGCGTGGGGGGCGGCGC
CCGCGGCCTACGACGCAGCGGACACGCACCTGCGCATCCTGGGCAAGCCGGTGATGGAGCGCTGGGAGAC
CCCCTATATGCACGCGCTGGCCGCCGCCGCCTCCTCCAAAGGGGGCCGGGTCCTGGAGGTGGGCTTTGGC
ATGGCCATCGCAGCGTCAAAGGTGCAGGAGGCGCCCATTGATGAGCATTGGATCATCGAGTGCAATGACG
GCGTCTTCCAGCGGCTCCGGGACTGGGCCCCACGGCAGACACACAAGGTCATCCCCTTGAAAGGCCTGTG
GGAGGATGTGGCACCCACCCTGCCTGACGGTCACTTTGATGGGATCCTGTACGACACGTACCCACTCTCG
GAGGAGACCTGGCACACACACCAGTTCAACTTCATCAAGAACCACGCCTTTCGCCTGCTGAAGCCGGGGG
GCGTCCTCACCTACTGCAACCTCACCTCCTGGGGGGAGCTGATGAAGTCCAAGTACTCAGACATCACCAT
CATGTTTGAGGAGACGCAGGTGCCCGCGCTGCTGGAGGCCGGCTTCCGGAGGGAGAACATCCGTACGGAG
GTGATGGCGCTGGTCCCACCGGCCGACTGCCGCTACTACGCCTTCCCACAGATGATCACGCCCCTGGTGA
CCAAAGGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

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Protein Sequence:

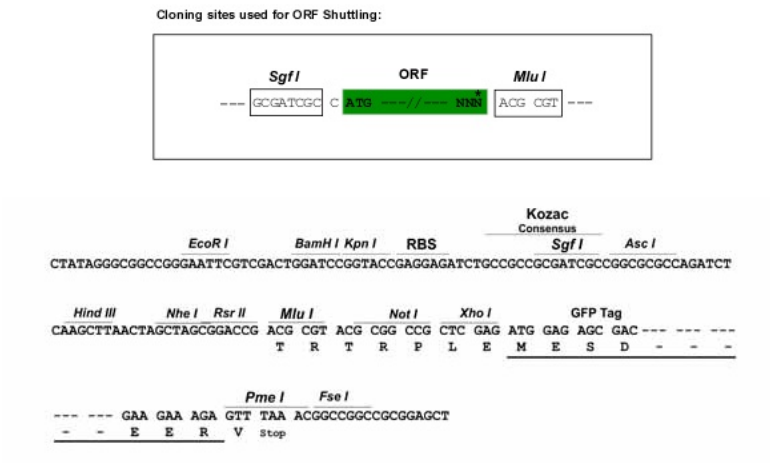
>RG216741 representing NM_138924
Red=Cloning site Green=Tags(s)

MSAPSATPIFAPGENCSPAWGAAPAAYDAADTHLRILGKPVMERWETPYMHALAAAASSKGGRVLEVGFG
MAIAASKVQEAPIDEHWIIECNDGVFQRLRDWAPRQTHKVIPLKGLWEDVAPTLPDGHFDGILYDTYPLS
EETWHTHQFNFIKNHAFRLLKPGGVLTYCNLTSWGELMKSKYSDITIMFEETQVPALLEAGFRRENIRTE
VMALVPPADCRYYAFPQMITPLVTKG

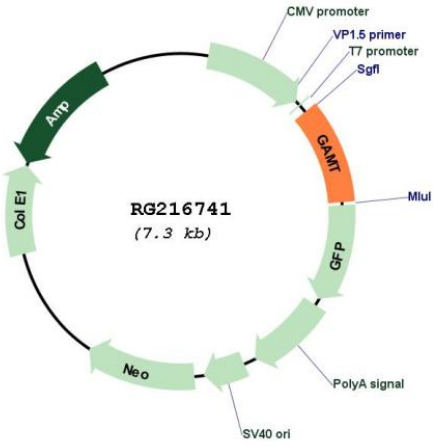
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_138924

ORF Size: 807 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_138924.1, NP_620279.1
RefSeq Size:	960 bp
RefSeq ORF:	810 bp
Locus ID:	2593
UniProt ID:	Q14353
Cytogenetics:	19p13.3
Protein Families:	Druggable Genome
Protein Pathways:	Arginine and proline metabolism, Glycine, serine and threonine metabolism, Metabolic pathways
Gene Summary:	The protein encoded by this gene is a methyltransferase that converts guanidoacetate to creatine, using S-adenosylmethionine as the methyl donor. Defects in this gene have been implicated in neurologic syndromes and muscular hypotonia, probably due to creatine deficiency and accumulation of guanidinoacetate in the brain of affected individuals. Two transcript variants encoding different isoforms have been described for this gene. Pseudogenes of this gene are found on chromosomes 2 and 13. [provided by RefSeq, Feb 2012]