

Product datasheet for **SC120642**

GAMT (NM_138924) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: GAMT (NM_138924) Human Untagged Clone
Tag: Tag Free
Symbol: GAMT
Synonyms: CCDS2; HEL-S-20; PIG2; TP53I2
Vector: pCMV6-XL4
E. coli Selection: Ampicillin (100 ug/mL)
Cell Selection: None
Fully Sequenced ORF: >OriGene ORF sequence for NM_138924 edited

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ATGAGCGCCCCAGCGCACCCCATCTTCGCGCCCGGCGAGAAGTGCAGCCCCGCGTGG
GGGGCGGCGCCCGCGCCCTACGACGCAGCGGACACGCACCTGCGCATCCTGGGCAAGCCG
GTGATGGAGCGCTGGGAGACCCCTATATGCACGCGCTGGCCGCCCGCCTCCTCCAAA
GGGGGCCGGTCTGGAGGTGGGCTTTGGCATGGCCATCGCAGCGTCAAAGGTGCAGGAG
GCGCCATTGATGAGCATTGGATCATCGAGTGCAATGACGGCGTCTTCAGCGGCTCCGG
GACTGGGCCCCACGGCAGACACACAAGGTCATCCCCTTAAAGGCCTGTGGGAGGATGTG
GCACCCACCTGCCTGACGGTCACTTTGATGGGATCCTGTACGACACGTACCCACTCTCG
GAGGAGACCTGGCACACACACCAGTTCAACTTCATCAAGAACCAGCCTTTCGCCTGCTG
AAGCCGGGGGGCGTCTCACCTACTGCAACCTCACCTCCTGGGGGGAGCTGATGAAGTCC
AAGTACTCAGACATCACCATCATGTTTGAGGAGACGCAGGTGCCCGCGCTGCTGGAGGCC
GGCTTCCGGAGGGAGAACATCCGTACGGAGGTGATGGCGCTGGTCCCACCGGCCGACTGC
CGCTACTACGCCTTCCCACAGATGATCACGCCCTGGTGACCAAAGGCTGA
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5' Read Nucleotide Sequence:	>OriGene 5' read for NM_138924 unedited NCACTNTNNAGGGCGGCCGGAATTCGGCACGAGCCCGGGCGGCGCGATCGAGGTCGG GTCGCCGTCCAGCCTGCAGCATGAGCGCCCCAGCGGACCCCATCTTCGCGCCCGGG AGAACTGCAGCCCCGCGTGGGGGGCGGCCCGCGCCTACGACGCAGCGGACACGCACC TGCGCATCCTGGCAAGCCGGTATGGAGCGCTGGGAGACCCCTATATGCACGCGCTGG CCGCCCGCCCTCCTCAAGGGGGCCGGTCTGGAGGTGGGCTTTGGCATGGCCATCG AGCGTCAAAGGTGCAGGAGGCGCCATTGATGAGCATTGGATCATCGAGTGCAATGACGG CGTCTTCCAGCGCTCCGGGACTGGGCCCCACGGCAGACACACAAGGTATCCCCTTGA AGCCTGTGGGAGGATGTGGCACCCACCCTGCCTGACGGTCACTTTGATGGGATCCTGTA CGACACGTACCCACTCTCGGAGGAGACCTGGCACACACACCAGTTCAACTTCATCAAGAA CCACGCCTTTCGCTGTTGAAGCCCGGGTGCCTCCTCACCTACTGGAACCTCACCTCCT GGGGGAGCCTCAGAAGTCCAAGTACTCAGACCTACCATTATGTTTGAGGAGACCCACG TGCCCCGTCTGTTGAAGCCGTTTTCCGGAGGAGAAAATCCGTACGGAGGTGATGGNTT TGTTTTTACCCGCCGATTTGTGTTCTAACGCTTCCACAATTATCTTTTTTTGTGACT AAAAGCTGATCCCCCATTTGTACCCGCCACATTTATGCCCTTTTTTTGCATTCCTTT TACCGCACTTTTTTTTTTCCCCTCTCTTTT
Restriction Sites:	NotI-NotI
ACCN:	NM_138924
Insert Size:	1250 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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:	<ol style="list-style-type: none"> 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]

Transcript Variant: This variant (2) lacks the 3'-most exon and fails to utilize the 3' splice donor site of the penultimate exon as compared to transcript variant 1. As a result, variant 2 encodes isoform b, which is longer and contains a distinct C-terminus, compared to isoform a. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.