

## Product datasheet for **SC325385**

### GART (NM\_001136006) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	GART (NM_001136006) Human Untagged Clone
Tag:	Tag Free
Symbol:	GART
Synonyms:	AIRS; GARS; GARTF; PAIS; PGFT; PRGS
Vector:	<u>pCMV6 series</u>
Fully Sequenced ORF:	>NCBI ORF sequence for NM_001136006, the custom clone sequence may differ by one or more nucleotides

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ATGGCAGCCCGAGTACTTATAATTGGCAGTGGAGGAAGGGAACATACGCTGGCCTGGAAA
CTTGACAGTCTCATCATGTCAAACAAGTGTGGTTGCCCCAGGAAACGCAGGCACTGCC
TGCTCTGAAAAGATTTCAAATACCGCCATCTCAATCAGTGACCACACTGCCCTTGCTCAA
TTCTGCAAAGAGAAGAAAATTGAATTTGTAGTTGTTGGACCAGAAGCACCTCTGGCTGCT
GGGATTGTTGGGAACCTGAGGTCTGCAGGAGTGAATGCTTTGGCCCAACAGCAGAAGCG
GCTCAGTTAGAGTCCAGCAAAAGGTTTGCCAAAGAGTTTATGGACAGACATGGAATCCCA
ACCGCACAAATGGAAGGCTTTCACCAAACCTGAAGAAGCCTGCAGCTTCATTTTGTAGTGA
GACTTCCCTGCTTTGGTTGTGAAGGCCAGTGGTCTTGCAGCTGGAAAAGGGGTGATTGTT
GCAAAGAGCAAAGAAGAGGCCTGCAAAGCTGTACAAGAGATCATGCAGGAGAAAGCCTTT
GGGGCAGCTGGAGAAACAATTGTCATTGAAGAAGTCTTGACGGGAGAAGAGGTGTCGTGT
CTGTGTTTCACTGATGGCAAGACTGTGGCCCCATGCCCCAGCACAGGACCATAAGCGA
TTACTGGAGGGAGATGGTGGCCCTAACACAGGGGGAATGGGAGCCTATTGTCAGCCCT
CAGGTTTCTAATGATCTATTACTAAAAATTAAGATACTGTTCTTCAGAGGACAGTGGAT
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CAAGCTCTAGGACTGGAGGTGTTCCATGCAGGCACTGCCCTCAAAAATGGCAAAGTAGTA
ACTCATGGGGGTAGAGTCTTGCAGTACAGCCATCCGGGAAAATCTCATATCAGCCCTT
GAGGAAGCCAAGAAAGGACTAGCTGCTATAAAGTTTGGAGGCAATTTATAGGAAAGAC
GTCGGCTTTCGTGCCATAGCTTTCCTCCAGCAGCCAGGAGTTTACTTACAAGGAATCT
GGAGTAGATATCGCAGCTGGAAATATGCTGGTCAAGAAAATTCAGCCTTTAGCAAAGCC
ACTTCCAGATCAGGCTGTAAAGTTGATCTTGGAGGTTTTGCTGGTCTTTTGTATTTAAA
GCAGCTGGTTTCAAAGATCCCTTCTGGCCTCTGGAACAGATGGCGTTGGAATAAACTA
AAGATTGCCAGCTATGCAATAAACATGATACCATTGGTCAAGATTTGGTAGCAATGTGT
GTTAATGATATTCTGGCACAAGGAGCAGAGCCCTCTTCTTCTTGTACTTTTCTGTG
GGAAAACCTGACCTCAGTGAAGTGAAGCTGTTGTTGCTGGAATTGCTAAAGCTTGTGGA
AAAGCTGGATGTGCTCTCCTTGGAGGTGAAACAGCAGAAATGCCTGACATGTATCCCTT

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GGAGAGTATGACCTAGCTGGGTTTGCCGTTGGTGCCATGGAGCGAGATCAGAACTCCCT
CACCTGGAAAGAATCACTGAGGGTGATGTTGTTGTTGGAATAGCTTCATCTGGTCTTCAT
AGCAATGGATTTAGCCTTGTGAGGAAAATCGTGGCAAAATCTTCCTCCAGTACTCCTCT
CCAGCACCTGATGGTTGTGGTGACCAGACTTTAGGGGACTTACTTCTCACGCCTACCAGA
ATCTACAGCCATTCACTGTTACCTGTCTACGTTCAGGACATGTCAAAGCCTTTGCCCAT
ATTACTGGTGGAGGATTACTAGAGAACATCCCCAGAGTCCCTGAGAAACTTGGGGTA
GATTTAGATGCCAGACCTGGAGGATCCCAGGGTCTTTCATGGTTGCAGCAGGAAGGA
CACCTCTCTGAGGAAGAGATGGCCAGAACATTTAACTGTGGGGTTGGCGCTGTCCTGTG
GTATCAAAGGAGCAGACAGAGCAGATTCTGAGGGATATCCAGCAGCACAAAGGAAGGCC
TGGGTGATTGGCAGTGTGGTTGCACGAGCTGAAGGTTCCCCACGTGTGAAAGTCAAGAAT
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TTCTCTTTTGAAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG
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ATCTCCAACAAAGCCGAGTAGCTGGGTTAGATAAAGCGGAAAGAGCTGGTATTCCCACT
AGAGTAATTAATCATAAACTGTATAAAAATCGTGTAGAATTTGACAGTGCATTGACCTA
GTCCTTGAAGAGTCTCCATAGACATAGTCTGTCTTGCAGGATTATGAGAATCTTTCT
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TCTTTTAAAGGTTCAAATGCCCATGAGCAAGCCCTGAAAACCGGAGTACAGTACTGGG
TGCACTGTACACTTTGTAGCTGAAGATGTGGATGCTGGACAGATTATTTTGAAGAAGCT
GTTCCCGTGAAGAGGGGTGATACTGTGCAACTCTTTCTGAAAGAGTAAAATTAGCAGAA
CATAAAATATTTCTGCAGCCCTCAGCTGGTGGCCAGTGGAACTGTACAGCTTGAGAA
AATGGCAAGATCTGTTGGGTTAAAGAGGAA
    
```

**Restriction Sites:**

Please inquire

**ACCN:**

NM\_001136006

**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).

**OTI Annotation:**

This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

**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\\_001136006.1](#), [NP\\_001129478.1](#)

**RefSeq Size:**

3515 bp

**RefSeq ORF:**

3033 bp

**Locus ID:**

2618

UniProt ID: [P22102](#)

Cytogenetics: 21q22.11

Protein Pathways: Metabolic pathways, One carbon pool by folate, Purine metabolism

Gene Summary: The protein encoded by this gene is a trifunctional polypeptide. It has phosphoribosylglycinamide formyltransferase, phosphoribosylglycinamide synthetase, phosphoribosylaminoimidazole synthetase activity which is required for de novo purine biosynthesis. This enzyme is highly conserved in vertebrates. Alternative splicing of this gene results in two transcript variants encoding different isoforms. [provided by RefSeq, Jul 2008]  
Transcript Variant: This variant (4) contains a different segment for its 5' UTR, compared to variant 1. Variants 1, 3, and 4 encode the same protein.