

## Product datasheet for **SC306533**

### **NAGS (NM\_153006) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	NAGS (NM_153006) Human Untagged Clone
Tag:	Tag Free
Symbol:	NAGS
Synonyms:	AGAS; ARGA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**Fully Sequenced ORF:** >SC306533 representing NM\_153006.  
 Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGCATCGCC
ATGGCGACGGCGCTGATGGCTGTGGTTCTGCGGGCAGCTGCTGTAGCCCCGAGGCTGAGAGGCCGGGA
GGCACTGGGGCGCCCGAAGGCTGAGCTGTGGCGCGGGCGGGCGGGCAGGGGACCCAGCCCGGGG
CGCCGGCTCAGCACCGCCTGGTCGCAGCCCCAGCCCCCGCCCGAGGAGTACGCGGGCGGGACGAGTCC
TCCAGTCGCCCCGTGCGCGAGGAGCCGTCGTGGGTGCCGAGTCCCAGGCCCCCGTGTCCCAACGAGTCC
CCAGAGCCTCCTTCGGGCGGCTCGCTGGTGCAGCGGGACATCCAGGCCTTCTGAACAGTGCGGGGCC
AGCCCTGGGGAGGCGCGCCACTGGCTCACGCAGTTCAGACCTGCCATCACTCCGCGGACAAGCCCTTC
GCCGTATCGAGGTGGACGAGGAGGTGCTCAAGTGCCAGCAGGGCGTATCCAGTCTGGCCTTTGCCCTG
GCCTTCTGCAGCGCATGGACATGAAGCCGCTGGTGGTCTGGGGCTGCCGGCCCTACGGCTCCCTCG
GGCTGTCTTTCTTCTGGGAGGCCAAGGCGCAGCTGGCCAAGAGCTGCAAGGTGCTGGTAGACGCGCTT
CGACACAACGCCCGCGCTGCTGTGCCATTTTTTGGCGGGGTCTGTGCTACGCGCTGCCGAGCCGGCT
CCCCATGCCAGCTACGGCGGCATCGTCTCGGTGGAGACAGACCTGCTGCAGTGGTGCCTGGAGTCGGGC
AGCATCCCCATCCTGTGCCCATCGGGGAGACGGCCGCGCGCCGCTCCGTGCTTCTCGACTCCCTGGAG
GTGACCGCGTCCGTCGGCAAGGCGCTGCGGCCACCAAAATCATCTTCTCAATAACACAGGCGGCTG
CGCGACAGCAGTCATAAGGTCTGAGTAACGTGAACCTGCCCGCCGACCTGGACCTGGTGTGCAACGCC
GAGTGGGTGAGCACAAAAGAACGGCAGCAGATGCGGCTCATCGTGGACGTGCTCAGCCGCTGCCCCAC
CACTCCTCGGCCGTCATCACGCCGCTAGCACGCTGCTCACTGAGCTCTTAGCAACAAGGGTCCGGG
ACCCTGTTCAAGAACGCCGAGCGAATGCTACGGGTGCGCAGCCTGGACAAGCTGGACCAGGGCCGCTA
GTGGACCTGGTCAACGCCAGCTTCGGCAAGAAGCTCAGGGACGACTACCTGGCCTCGCTGCGCCCGCG
CTGCACTCCATCTACGTCTCCGAGGGTACAACGCCCGCCATTCTGACCATGGAGCCCGTCTGGGG
GGCACCCCGTACCTGGACAAATTTGTGGTGGAGCTCCAGCCGCGAGGGCCAAGGCTCCGGCCAGATGCTG
TGGGAGTGCCTGCGGGGACCTTCAGACACTTTTCTGGCGCTCCCGGGTACCAACCCCATCAATCCC
TGGTACTTCAAACACAGTGATGGCAGTTCTCCAACAAGCAGTGGATCTTCTTCTGGTTTGGCCTGGCT
GATATCCGGGACTCCTATGAGTTGGTCAACCACGCCAAGGGACTGCCAGACTCCTTTCACAAGCCAGT
TCTGACCCAGGCAGCTGA
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGAT
TACAAGGATGACGACGATAAGGTTAAACGGCCGCGC
  
```

- Restriction Sites:** Sgfl-Mlul
- Plasmid Map:** □
- ACCN:** NM\_153006
- Insert Size:** 1605 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).
- 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\\_153006.2](#)

**RefSeq Size:** 2086 bp

**RefSeq ORF:** 1605 bp

**Locus ID:** 162417

**UniProt ID:** [Q8N159](#)

**Cytogenetics:** 17q21.31

**Protein Pathways:** Arginine and proline metabolism, Metabolic pathways

**MW:** 58.2 kDa

**Gene Summary:** The N-acetylglutamate synthase gene encodes a mitochondrial enzyme that catalyzes the formation of N-acetylglutamate (NAG) from glutamate and acetyl coenzyme-A. NAG is a cofactor of carbamyl phosphate synthetase I (CPSI), the first enzyme of the urea cycle in mammals. This gene may regulate ureagenesis by altering NAG availability and, thereby, CPSI activity. Deficiencies in N-acetylglutamate synthase have been associated with hyperammonemia. [provided by RefSeq, Jul 2008]