

## Product datasheet for **RG223189**

### ASS1 (NM\_000050) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ASS1 (NM_000050) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ASS1
Synonyms:	ASS; CTLN1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG223189 representing NM_000050 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCCAGCAAAGGCTCCGTGGTTCTGGCCTACAGTGGCGGCCTGGACACCTCGTGCATCCTCGTGTGGC  
TGAAGGAACAAGGCTATGACGTATTGCCTATCTGGCCAACATTGGCCAGAAGGAAGACTTCGAGGAAGC  
CAGGAAGAAGGCACTGAAGCTTGGGGCCAAAAGGTGTTTCATTGAGGATGTCAGCAGGGAGTTTGTGGAG  
GAGTTCATCTGGCCGGCCATCCAGTCCAGCGCACTGTATGAGGACCGCTACCTCCTGGGCACCTCTCTTG  
CCAGGCCCTGCATCGCCCGCAAACAAGTGAAATCGCCAGCGGGAGGGGCAAGTATGTGTCCCACGG  
CGCCACAGGAAAGGGGAACGATCAGGTCCGGTTTGTAGCTCAGCTGCTACTCACTGGCCCCCAGATAAAG  
GTCATTGCTCCCTGGAGGATGCCTGAATTCTACAACCGGTTCAAGGGCCGAATGACCTGATGGAGTACG  
CAAAGCAACACGGGATCCCATCCCGGTCACTCCAAGAACCCTGGAGCATGGATGAGAACCTCATGCA  
CATCAGCTACGAGGCTGGAATCCTGGAGAACCCCAAGAACCAAGCGCCTCCAGGTCTCTACACGAAGACC  
CAGGACCCAGCCAAAGCCCCAACCCCTGACATTCTCGAGATCGAGTTCAAAAAGGGGTCCCTGTGA  
AGGTGACCAACGTCAAGGATGGCACCACCACAGACCTCCTGGAGCTCTTCAATGTAACGAAGT  
CGCGGGCAAGCATGGCGTGGGCCGTATTGACATCGTGGAGAACCCTTCATTGGAATGAAGTCCCGAGGT  
ATCTACGAGACCCAGCAGGCACCATCCTTTACCACGCTCATTAGACATCGAGGCCCTCCACATGGACC  
GGGAAGTGCACAAAATCAAACAAGGCTGGGCTTGAAATTTGCTGAGCTGGTGTATACCGGTTTCTGGCA  
CAGCCCTGAGTGTGAATTTGCCCCACTGCATCGCCAAGTCCCAGGAGCGAGTGAAGGGAAAAGTGCAG  
GTGTCCGTCTCAAGGGCCAGGTGTACATCCTCGGCCGGGAGTCCCCTGTCTCTACAATGAGGAGC  
TGGTGAGCATGAACGTGCAGGGTATTATGAGCCAACCTGATGCCACCGGGTTCATCAACATCAATCCCT  
CAGGCTGAAGGAATATCATCGTCTCCAGAGCAAGGTCCTGCCAAA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG223189 representing NM\_000050  
 Red=Cloning site Green=Tags(s)

MSSKGSVVLAYSGLDTSCILVWLKEQGYDVIAYLANIGQKEDFEEARKKALKLGAKKVFIEDVSREFVE  
 EFIWPAIQSSALYEDRYLLGTSLARPCIARKQVEIAQREGAKYVSHGATGKGNQVRFELSCYSLAPQIK  
 VIAPWRMPEFYNRFKGRNDLMEYAKQHGIPIVTPKNPWSMDENLMHISYEAGILENPKNQAPPGLYTKT  
 QDPAKAPNTPDILEIEFKKGVVPVKVTNVKDGTTHTQTSLELFMYLNEVAGKHGVRIDIVENRFIGMKS  
 RGIYETPAGTILYHAHLIDIEAFTMDREVRKIKQGLGLKFAELVYTFWFHSPCECFVVRHICIAKSQER  
 VEGKVQVSVLKGQVYILGRESPLSLYNEELVSMNVQGDYEPTDATGFININSLRLKEYHRLQSKVTA  
 K

TRTRPLE – GFP Tag – V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_000050

**ORF Size:** 1236 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\\_000050.3](#), [NP\\_000041.2](#)

**RefSeq Size:** 1582 bp

**RefSeq ORF:** 1239 bp

**Locus ID:** 445

**UniProt ID:** [P00966](#)

**Cytogenetics:** 9q34.11

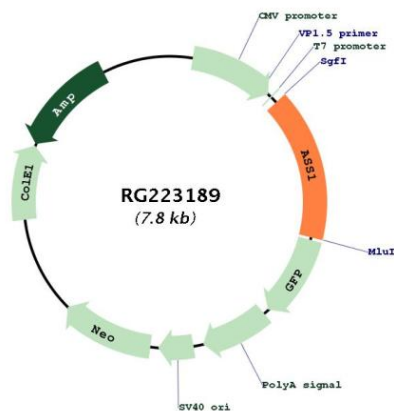
**Domains:** Arginosuc\_synth

**Protein Families:** Druggable Genome

**Protein Pathways:** Alanine, aspartate and glutamate metabolism, Arginine and proline metabolism, Metabolic pathways

**Gene Summary:** The protein encoded by this gene catalyzes the penultimate step of the arginine biosynthetic pathway. There are approximately 10 to 14 copies of this gene including the pseudogenes scattered across the human genome, among which the one located on chromosome 9 appears to be the only functional gene for argininosuccinate synthetase. Mutations in the chromosome 9 copy of this gene cause citrullinemia. Two transcript variants encoding the same protein have been found for this gene. [provided by RefSeq, Aug 2012]

### Product images:



Circular map for RG223189