

## **Product datasheet for RC223189**

## ASS1 (NM 000050) Human Tagged ORF Clone

## **Product data:**

**Product Type:** Expression Plasmids

**Product Name:** ASS1 (NM\_000050) Human Tagged ORF Clone

Tag: Myc-DDK

Symbol: ASS1

**Synonyms:** ASS; CTLN1

Mammalian Cell Neomycin

Selection:

Vector: pCMV6-Entry (PS100001)

E. coli Selection: Kanamycin (25 ug/mL)

ORF Nucleotide >RC223189 ORF sequence

Sequence: Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC

GCCGCGATCGCC

ATGTCCAGCAAAGGCTCCGTGGTTCTGGCCTACAGTGGCGGCCTGGACACCTCGTGCATCCTCGTGTGGC CAGGAAGAAGGCACTGAAGCTTGGGGCCAAAAAGGTGTTCATTGAGGATGTCAGCAGGAGTTTGTGGAG GAGTTCATCTGGCCGGCCATCCAGTCCAGCGCACTGTATGAGGACCGCTACCTCCTGGGCACCTCTCTTG CCAGGCCCTGCATCGCCCGCAAACAAGTGGAAATCGCCCAGCGGGAGGGGGCCAAGTATGTGTCCCACGG CGCCACAGGAAAGGGGAACGATCAGGTCCGGTTTGAGCTCAGCTGCTACTCACTGGCCCCCCAGATAAAG GTCATTGCTCCCTGGAGGATGCCTGAATTCTACAACCGGTTCAAGGGCCGCAATGACCTGATGGAGTACG CAAAGCAACACGGGATTCCCATCCCGGTCACTCCCAAGAACCCGTGGAGCATGGATGAGAACCTCATGCA CATCAGCTACGAGGCTGGAATCCTGGAGAACCCCAAGAACCAAGCGCCTCCAGGTCTCTACACGAAGACC CAGGACCCAGCCAAAGCCCCCAACACCCCTGACATTCTCGAGATCGAGTTCAAAAAAAGGGGTCCCTGTGA AGGTGACCAACGTCAAGGATGGCACCACCACCAGACCTCCTTGGAGCTCTTCATGTACCTGAACGAAGT CGCGGGCAAGCATGGCGTGGGCCGTATTGACATCGTGGAGAACCGCTTCATTGGAATGAAGTCCCGAGGT ATCTACGAGACCCCAGCAGGCACCATCCTTTACCACGCTCATTTAGACATCGAGGCCTTCACCATGGACC GGGAAGTGCGCAAAATCAAACAAGGCCTGGGCTTGAAATTTGCTGAGCTGGTGTATACCGGTTTCTGGCA CAGCCCTGAGTGTGAATTTGTCCGCCACTGCATCGCCAAGTCCCAGGAGCGAGTGGAAGGGAAAGTGCAG GTGTCCGTCCTCAAGGGCCAGGTGTACATCCTCGGCCGGGAGTCCCCACTGTCTCTCTACAATGAGGAGC TGGTGAGCATGAACGTGCAGGGTGATTATGAGCCAACTGATGCCACCGGGTTCATCAACATCAATTCCCT CAGGCTGAAGGAATATCATCGTCTCCAGAGCAAGGTCACTGCCAAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATTACAAGGATGACGACGATAAGGTTTAA



**OriGene Technologies, Inc.** 9620 Medical Center Drive, Ste 200

CN: techsupport@origene.cn

Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com techsupport@origene.com EU: info-de@origene.com



Protein Sequence: >RC223189 protein sequence

Red=Cloning site Green=Tags(s)

MSSKGSVVLAYSGGLDTSCILVWLKEQGYDVIAYLANIGQKEDFEEARKKALKLGAKKVFIEDVSREFVE EFIWPAIQSSALYEDRYLLGTSLARPCIARKQVEIAQREGAKYVSHGATGKGNDQVRFELSCYSLAPQIK VIAPWRMPEFYNRFKGRNDLMEYAKQHGIPIPVTPKNPWSMDENLMHISYEAGILENPKNQAPPGLYTKT QDPAKAPNTPDILEIEFKKGVPVKVTNVKDGTTHQTSLELFMYLNEVAGKHGVGRIDIVENRFIGMKSRG IYETPAGTILYHAHLDIEAFTMDREVRKIKQGLGLKFAELVYTGFWHSPECEFVRHCIAKSQERVEGKVQ VSVLKGQVYILGRESPLSLYNEELVSMNVQGDYEPTDATGFININSLRLKEYHRLQSKVTAK

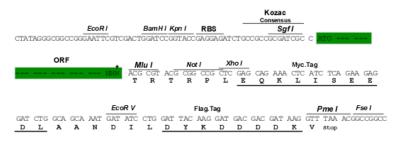
**TRTRPL**EQKLISEEDLAANDILDYKDDDDK**V** 

Chromatograms: <a href="https://cdn.origene.com/chromatograms/mk6419">https://cdn.origene.com/chromatograms/mk6419</a> f11.zip

**Restriction Sites:** Sgfl-Mlul

Cloning Scheme:





<sup>\*</sup> The last codon before the Stop codon of the ORF

**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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with

0.22um filter is required.

RefSeq: <u>NM 000050.4</u>

 RefSeq Size:
 1863 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

**MW:** 46.5 kDa

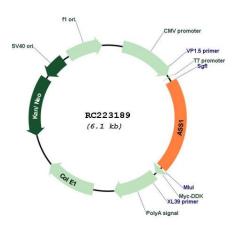
**Gene Summary:** The protein encoded by this gene catalyzes the penultimate step of the arginine biosynthetic

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

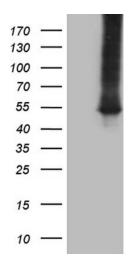
same protein have been found for this gene. [provided by RefSeq, Aug 2012]



## **Product images:**

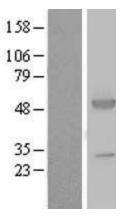


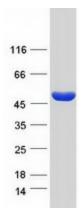
Circular map for RC223189



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ASS1 (Cat# RC223189, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ASS1 (Cat# [TA809216])(1:2000). Positive lysates [LY424955] (100ug) and [LC424955] (20ug) can be purchased separately from OriGene.







Western blot validation of overexpression lysate (Cat# [LY424955]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC223189 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).

Coomassie blue staining of purified ASS1 protein (Cat# [TP323189]). The protein was produced from HEK293T cells transfected with ASS1 cDNA clone (Cat# RC223189) using MegaTran 2.0 (Cat# [TT210002]).