

Product datasheet for RC201130

ASS1 (NM_054012) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ASS1 (NM_054012) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ASS1
Synonyms:	ASS; CTLN1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC201130 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTCCAGCAAAGGCTCCGTGGTCTGGCTACAGTGGCGGCCTGGACACCTCGTGCATCCTCGTGTGGC
TGAAGGAACAAGGCTATGACGTATTGCCTATCTGGCCAACATTGGCCAGAAGGAAGACTTCGAGGAAGC
CAGGAAGAAGGCACTGAAGCTTGGGGCCAAAAAGGTGTTTCATTGAGGATGTCAGCAGGGAGTTTGTGGAG
GAGTTCATCTGGCCGGCCATCCAGTCCAGCGCACTGTATGAGGACCGCTACCTCCTGGGCACCTCTCTTG
CCAGGCCCTGCATCGCCCGCAAACAAGTGGAAATCGCCAGCGGGAGGGGCAAGTATGTGTCCCACGG
CGCCACAGGAAAGGGGAACGATCAGGTCCGGTTTGGAGCTCAGCTGCTACTCACTGGCCCCCAGATAAAG
GTCATTGCTCCCTGGAGGATGCCTGAATTCTACAACCGTTCAAGGGCCGAATGACCTGATGGAGTACG
CAAAGCAACACGGGATCCCATCCCGTCACTCCAAGAACCCTGGAGCATGGATGAGAACCTCATGCA
CATCAGCTACGAGGCTGGAATCCTGGAGAACCCCAAGAACCAAGCGCCTCCAGGTCTCTACACGAAGACC
CAGGACCCAGCCAAAGCCCCAACCCCTGACATTCTCGAGATCGAGTTCAAAAAGGGTCCCTGTGA
AGGTGACCAACGTCAAGGATGGCACCACCACAGACCTCCTGGAGCTCTTCAATGTAACGAAGT
CGCGGGCAAGCATGGCGTGGCCGTATTGACATCGTGGAGAACCCTTCATTGGAATGAAGTCCCGAGGT
ATCTACGAGACCCAGCAGGCACCATCCTTTACCACGCTCATTTAGACATCGAGGCCCTCCACCATGGACC
GGGAAGTGCACAAAATCAAACAAGGCTGGGCTTGAAATTTGCTGAGCTGGTGTATACCGTTTTCTGGCA
CAGCCCTGAGTGTGAATTTGTCGCCACTGCATCGCCAAGTCCCAGGAGCGAGTGAAGGGAAAAGTGCAG
GTGTCCGTCTCAAGGGCCAGGTGTACATCCTCGGCCGGGAGTCCCCTGTCTCTACAATGAGGAGC
TGGTGAGCATGAACGTGCAGGGTATTATGAGCCAACCTGATGCCACCGGGTTCATCAACATCAATCCCT
CAGGCTGAAGGAATATCATCGTCTCCAGAGCAAGGTCCTGCCAAA

ACGGTACGGCGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



Protein Sequence: >RC201130 protein sequence
Red=Cloning site Green=Tags(s)

MSSKGSVVLAYSGLDTSILVWLKEQGYDVIAYLANIGQKEDFEEARKKALKLGAKKVFIEDVSREFVE
 EFIWPAIQSSALYEDRYLLGTSLARPCIARKQVEIAQREGAKYVSHGATGKGNQVRFELSCYSLAPQIK
 VIAPWRMPEFYNRFKGRNDLMEYAKQHGIPIVTPKNPWSMDENLMHISYEAGILENPKNQAPPGLYTKT
 QDPAKAPNTPDILEIEFKKGVVPKVTNVKDGTTHTQTSLELFMYLNEVAGKHGTVGRIDIVENRFIGMKS
 RGIYETPAGTILYHAHLIDIEAFTMDREVRKIKQGLGLKFAELVYTGFWHSPECFVVRHICIAKSQERVEGK
 VQVSVLKGQVYILGRESPLSLYNEELVSMNVQGDYEPTDATGFININSLRLKEYHRLQSKVTAK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6052_h04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_054012

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: [NM_054012.1](#)

RefSeq Size: 1801 bp

RefSeq ORF: 1239 bp

Locus ID: 445

UniProt ID: [P00966](#)

Cytogenetics: 9q34.11

Domains: Arginosuc_synth

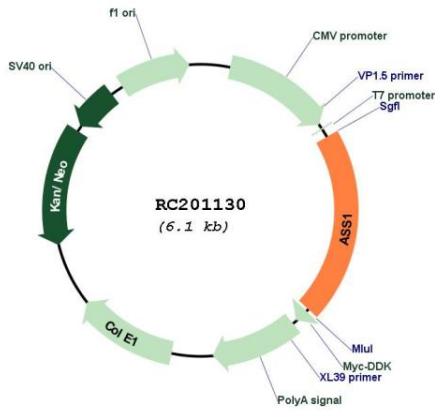
Protein Families: Druggable Genome

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

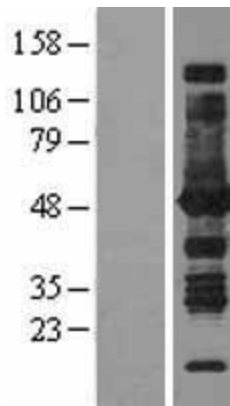
MW: 46.5 kDa

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]

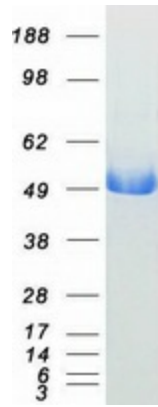
Product images:



Circular map for RC201130



Western blot validation of overexpression lysate (Cat# [LY403289]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201130 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ASS1 protein (Cat# [TP301130]). The protein was produced from HEK293T cells transfected with ASS1 cDNA clone (Cat# RC201130) using MegaTran 2.0 (Cat# [TT210002]).