

Product datasheet for **RC217708**

Argininosuccinate Lyase (ASL) (NM_001024946) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Argininosuccinate Lyase (ASL) (NM_001024946) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Argininosuccinate Lyase
Synonyms:	ASAL
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide
Sequence:

>RC217708 representing NM_001024946
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCCGGATCGCC

ATGGCCTCGGAGAGTGGGAAGCTTTGGGGTGGCCGGTTTGTGGGTGCAGTGGACCCCATCATGGAGAAGT
TCAACGCGTCCATTGCCTACGACCGGCACCTTTGGGAGGTGGATGTTCAAGGCAGCAAAGCTACAGCAG
GGCCTGGAGAAGGCAGGGCTCCTACCAAGGCCGAGATGGACCAGATACTCCATGGCCTAGACAAGGTG
GCTGAGGAGTGGGCCAGGGCACCTTCAAAGTGAAGTCCAATGATGAGGACATCCACACAGCCAATGAGC
GCCGCTGAAGGAGCTCATTGGTGAACGGCAGGGAAGCTGCACACGGGACGGAGCCGGAATGACCAGGT
GGTACAGACCTCAGGCTGTGGATGCGGCAGACCTGCTCCACGCTCTCGGGCCTCCTCTGGGAGCTCATT
AGGACCATGGTGGATCGGGCAGAGGCGGAACGTGATGTTCTTCCCGGGGTACACCCATTTGCAGAGGG
CCCAGCCCATCCGCTGGAGCCACTGGATTCTGAGTGGGGCCATTGCAGGCAATCCCCTGGGTGTGGACCG
AGAGCTGCTCCGAGCAGAACTCAACTTTGGGGCCATCACTCTCAACAGCATGGATGCCACTAGTGAGCGG
GACTTTGTGGCCGAGTTCCTGTTCTGGGCTTCGCTGTGCATGACCCATCTCAGCAGGATGGCCGAGGACC
TCATCCTCTACTGCACCAAGGAATTCAGCTTCGTGCAGCTCTCAGATGCCTACAGCACGGGAAGCAGCCT
GATGCCCCAGAAGAAAACCCCGACAGTTTGGAGCTGATCCGGAGCAAGGCTGGGCGTGTGTTTGGGCGG
TGTGCCGGCTCCTGATGACCCTCAAGGGACTTCCCAGCACCTACAACAAAGACTTACAGGAGGACAAGG
AAGCTGTGTTTGAAGTGTGAGACACTATGAGTGCCGTGCTCCAGGTGGCCACTGGCGTCTCTACGCT
GCAGATTCACCAAGAGAACATGGGACAGGCTCTCAGCCCCGACATGCTGGCCACTGACCTTGCCATTAC
CTGGTCCGCAAAGGGATGCCATTCGCCAGGCCACGAGGCCCTCCGGGAAAGCTGTGTTTCATGGCCGAGA
CCAAGGGGTGCGCCCTCAACCAGCTGTCACTGAGGAGCTGCAGACCATCAGCCCCTGTTCTCGGCGGA
CGTGATCTGCGTGTGGGACTACGGGCACAGTGTGGAGCAGTATGGTGCCCTGGGCGGCACTGCGCGCTCC
AGCGTCGACTGGCAGATCCGCCAGGTGCGGGCGCTACTGCAGGCACAGCAGGCC

AGCGGACCGACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
TGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC217708 representing NM_001024946
Red=Cloning site Green=Tags(s)

MASESGKLWGRFVGAVDPIMEKFNASIAADRHLWEVDVQGSKAYSRLKAGLLTKAEMDQILHGLDKV
AEEWAQGTFLNSNDEDIHTANERRLKEIGATAGKLHTGRSRNDQVVDLRLWMRQTCSTLSGLLWELI
RTMVDRAEAERDVLFPGYTHLQRAQPIRWSHWILSGAIAGNPLGVDRELLRAELNFGAITLNSMDATSER
DFVAEFLFWASLCMTHLSRMAEDLILYCTKEFSFVQLSDAYSTGSSLMPQKKNPDSLELIRSKAGRVFGR
CAGLLMTLKGLPSTYNKDLQEDKEAVFEVSDTMSAVLQVATGVI STLQIHQENMGQALSPDMLATDLAYY
LVRKGMFPRQAHEASGKAVFMAETKGVALNQLSLQELQTSPLFSGDVICVWDYGHVSVEQYGALGGTARS
SVDWQIRQVRALLQAQQA

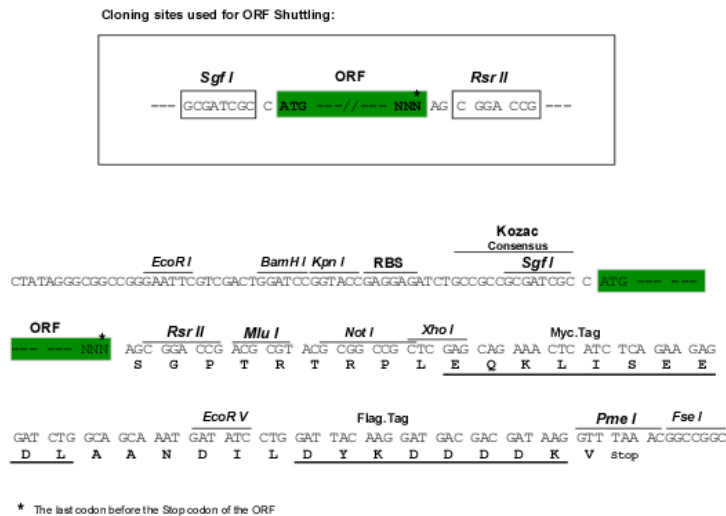
SGPTRRRLKQLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk8060_a01.zip

Restriction Sites:

Sgfl-RsrII

Cloning Scheme:


ACCN: NM_001024946

ORF Size: 1314 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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.

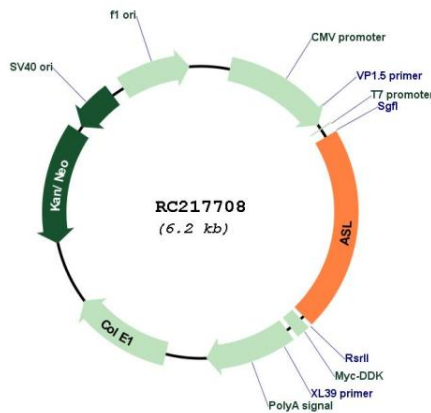
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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.

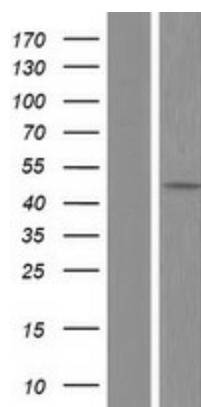
RefSeq: [NM_001024946.2](#)

RefSeq Size:	1983 bp
RefSeq ORF:	1317 bp
Locus ID:	435
Cytogenetics:	7q11.21
Protein Pathways:	Alanine, aspartate and glutamate metabolism, Arginine and proline metabolism, Metabolic pathways
MW:	48.6 kDa
Gene Summary:	This gene encodes a member of the lyase 1 family. The encoded protein forms a cytosolic homotetramer and primarily catalyzes the reversible hydrolytic cleavage of argininosuccinate into arginine and fumarate, an essential step in the liver in detoxifying ammonia via the urea cycle. Mutations in this gene result in the autosomal recessive disorder argininosuccinic aciduria, or argininosuccinic acid lyase deficiency. A nontranscribed pseudogene is also located on the long arm of chromosome 22. Alternatively spliced transcript variants encoding different isoforms have been described. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC217708



Western blot validation of overexpression lysate (Cat# [LY422564]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217708 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).