

## 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)



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**ORF Nucleotide Sequence:**

>RC217708 representing NM\_001024946  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCCTCGGAGAGTGGGAAGCTTTGGGGTGGCCGGTTTGTGGGTGCAGTGGACCCCATCATGGAGAAGT  
 TCAACGCGTCCATTGCCTACGACCGGCACCTTTGGGAGGTGGATGTTCAAGGCAGCAAAGCTACAGCAG  
 GGGCCTGGAGAAGGCAGGGCTCCTCACCAAGGCCGAGATGGACCAGATACTCCATGGCCTAGACAAGGTG  
 GCTGAGGAGTGGGCCAGGGCACCTTCAAAGTGAAGTCCAATGATGAGGACATCCACACAGCCAATGAGC  
 GCCGCTGAAGGAGCTCATTGGTGAACGGCAGGGAAAGCTGCACACGGGACGGAGCCGGAATGACCAGGT  
 GGTACAGACCTCAGGCTGTGGATGCGGCAGACCTGCTCCACGCTCTCGGGCCTCCTCTGGGAGCTCATT  
 AGGACCATGGTGGATCGGGCAGAGGCGGAACGTGATGTTCTTCCCGGGGTACACCCATTTGCAGAGGG  
 CCCAGCCCATCCGCTGGAGCCACTGGATTCTGAGTGGGGCCATTGCAGGCAATCCCCTGGGTGTGGACCG  
 AGAGCTGCTCCGAGCAGAACTCAACTTTGGGGCCATCACTCTCAACAGCATGGATGCCACTAGTGAGCGG  
 GACTTTGTGGCCGAGTTCCTGTTCTGGGCTTCGCTGTGCATGACCCATCTCAGCAGGATGGCCGAGGACC  
 TCATCCTCTACTGCACCAAGGAATTCAGCTTCGTGCAGCTCTCAGATGCCTACAGCACGGGAAGCAGCCT  
 GATGCCCCAGAAGAAAACCCCGACAGTTTGGAGCTGATCCGGAGCAAGGCTGGGCGTGTGTTTGGGCGG  
 TGTGCCGGGCTCCTGATGACCCTCAAGGGACTTCCCAGCACCTACAACAAAGACTTACAGGAGGACAAGG  
 AAGCTGTGTTTGAAGTGTGAGACACTATGAGTGCCGTGCTCCAGGTGGCCACTGGCGTCTCTACGCT  
 GCAGATTCACCAAGAGAACATGGGACAGGCTCTCAGCCCCGACATGCTGGCCACTGACCTTGCCATTAC  
 CTGGTCCGCAAAGGGATGCCATTCGCCAGGCCACGAGGCCCTCCGGGAAAGCTGTGTTTCATGGCCGAGA  
 CCAAGGGGGTCCGCTCAACACAGCTGTCACTGAGGAGCTGCAGACCATCAGCCCCTGTTCTCGGGCGA  
 CGTGATCTGCGTGTGGGACTACGGGCACAGTGTGGAGCAGTATGGTGCCCTGGGGCGGCACTGCGCGCTCC  
 AGCGTCGACTGGCAGATCCGCCAGGTGCGGGCGCTACTGCAGGCACAGCAGGCC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
 TGGATTACAAGGATGACGACGATAAGGTTAA

**Protein Sequence:**

>RC217708 representing NM\_001024946  
 Red=Cloning site Green=Tags(s)

MASESGKLWGRFVAVDPIMEKFNASIAADRHLWEVDVQGSKAYSRLGKAGLLTKAEMDQILHGLDKV  
 AEEWAQGTFLNSNDEDIHTANERRLKEIGATAGKLHTGRSRNDQVVDLRLWMRQTCSTLSGLLWELI  
 RTMVDRAEAERDVLFPGYTHLQRAQPIRWSHWILSGAIAGNPLGVDRELLRAELNFGAITLNSMDATSER  
 DFVAEFLFWASLCMTHLSRMAEDLILYCTKEFSFVQLSDAYSTGSSLMPQKKNPDSLELIRSKAGRVFGR  
 CAGLLMTLKGLPSTYNKDLQEDKEAVFEVSDTMSAVLQVATGVI STLQIHQENMGQALSPDMLATDLAYY  
 LVRKGMFPRQAHEASGKAVFMAETKGVALNQLSLQELQTSPLFSGDVICVWDYGHVSVEQYGALGGTARS  
 SVDWQIRQVRALLQAQQA

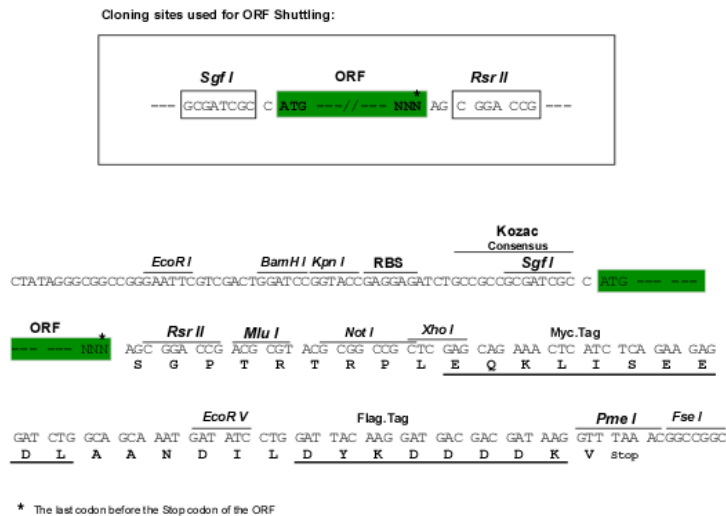
**SGP**TRTRRLEQKLI SEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk8060\\_a01.zip](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](mailto: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](#)

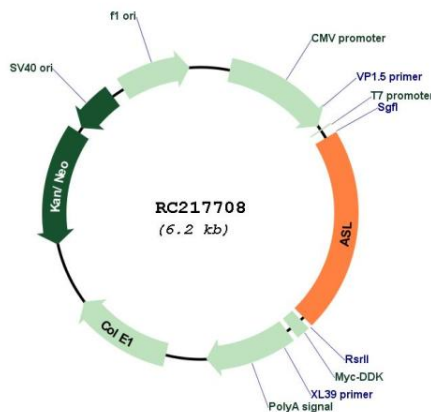
**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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).

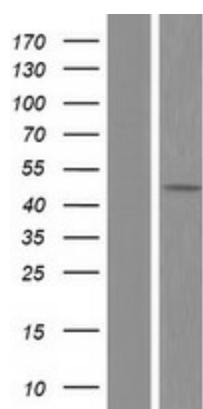
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
  2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
  3. Close the tube and incubate for 10 minutes at room temperature.
  4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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.

<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<u><a href="#">NM_001024946.2</a></u>
<b>RefSeq Size:</b>	1983 bp
<b>RefSeq ORF:</b>	1317 bp
<b>Locus ID:</b>	435
<b>Cytogenetics:</b>	7q11.21
<b>Protein Pathways:</b>	Alanine, aspartate and glutamate metabolism, Arginine and proline metabolism, Metabolic pathways
<b>MW:</b>	48.6 kDa
<b>Gene Summary:</b>	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]).