

Product datasheet for **SC302323**

Argininosuccinate Lyase (ASL) (NM_001024946) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Argininosuccinate Lyase (ASL) (NM_001024946) Human Untagged Clone
Tag: Tag Free
Symbol: Argininosuccinate Lyase
Synonyms: ASAL
Mammalian Cell Selection: None
Vector: pCMV6-XL4
E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene ORF sequence for NM_001024946 edited
 ATGGCCTCGGAGAGTGGGAAGCTTTGGGGTGGCCGGTTTGTGGGTGCAGTGGACCCCATC
 ATGGAGAAGTTCAACCGTCCATTGCCTACGACCGGCACCTTTGGGAGGTGGATGTTCAA
 GGCAGCAAAGCCTACAGCAGGGGCTGGAGAAGGCAGGGCTCCTACCAAGGCCGAGATG
 GACCAGATACTCCATGGCCTAGACAAGGTGGCTGAGGAGTGGGCCAGGGCACCTTCAA
 CTGAACTCCAATGATGAGGACATCCACACAGCCAATGAGCGCCGCTGAAGGAGCTCATT
 GGTGCAACGGCAGGGAAGCTGCACACGGGACGGAGCCGGAATGACCAGGTGGTCACAGAC
 CTCAGGCTGTGGATGCGGCAGACCTGCTCCACGCTCTCGGGCCTCCTCTGGGAGCTCATT
 AGGACCATGGTGGATCGGGCAGAGGGCGAACGTGATGTTCTTCCCGGGGTACACCCAT
 TTGCAGAGGGCCAGCCATCCGCTGGAGCCACTGGATTCTGAGTGGGGCCATTGCAGGC
 AATCCCCTGGGTGTGGACCGAGAGCTGCTCCGAGCAGAACAATTTGGGGCCATCACT
 CTCAACAGCATGGATGCCACTAGTGAGCGGGACTTTGTGGCCGAGTTCCTGTTCTGGGCT
 TCGCTGTGCATGACCCATCTCAGCAGGATGGCCGAGGACCTCATCCTCTACTGCACCAAG
 GAATTCAGCTTCGTGCAGCTCTCAGATGCCTACAGCACGGGAAGCAGCCTGATGCCCCAG
 AAGAAAAACCCGACAGTTTGGAGCTGATCCGGAGCAAGGCTGGGCGTGTGTTGGGCGG
 TGTGCCGGCTCCTGATGACCCTCAAGGACTTCCCAGCACCTACAACAAAGACTTACAG
 GAGGACAAGGAAGCTGTGTTTGAAGTGCAGACACTATGAGTGCCGTGCTCCAGGTGGCC
 ACTGGCGTCATCTACGCTGCAGATTACCAAGAGAACATGGGACAGGCTCTCAGCCCC
 GACATGCTGGCCACTGACCTTGCTATTACCTGGTCCGAAAGGGATGCCATTCGCGCAG
 GCCACGAGGCCTCCGGGAAAGCTGTGTTTCATGGCCGAGACCAAGGGGGTCCGCCCAAC
 CAGCTGTCACTGCAGGAGCTGCAGACCATCAGCCCCCTGTTCTCGGGCGACGTGATCTGC
 GTGTGGGACTACGGGCACAGTGTGGAGCAGTATGGTGCCCTGGGCGGCACTGCGCGCTCC
 AGCGTCGACTGGCAGATCCGCCAGGTGCGGGCGCTACTGCAGGCACAGCAGGCCTAG

Restriction Sites: Please inquire
ACCN: NM_001024946



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Insert Size:	1500 bp
OTI Disclaimer:	<p>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.</p> <p>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</p>
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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:	<ol style="list-style-type: none"> 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_001024946.1 , NP_001020117.1
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

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]

Transcript Variant: This variant (4) lacks an alternate, in-frame exon, compared to variant 1, resulting in a shorter protein (isoform 3).