

Product datasheet for **SC114664**

Argininosuccinate Lyase (ASL) (NM_000048) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Argininosuccinate Lyase (ASL) (NM_000048) Human Untagged Clone
Tag:	Tag Free
Symbol:	ASL
Synonyms:	ASAL
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Cell Selection:	None
Fully Sequenced ORF:	>NCBI ORF sequence for NM_000048, the custom clone sequence may differ by one or more nucleotides

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ATGGCCTCGGAGAGTGGGAAGCTTTGGGGTGGCCGTTTGTGGGTGCAGTGGACCCATCATGGAGAAGT
TCAACGCGTCCATTGCCTACGACCGGCACCTTTGGGAGGTGGATGTTCAAGGCAGCAAAGCCTACAGCAG
GGGCTGGAGAAGGCAGGGCTCCTACCAAGGCCGAGATGGACCAGATACTCCATGGCCTAGACAAGGTG
GCTGAGGAGTGGGCCAGGGCACCTTCAAAGTGAAGTCCAATGATGAGGACATCCACACAGCCAATGAGC
GCCGCTGAAGGAGCTCATTGGTGAACGGCAGGGAAGCTGCACACGGGACGGAGCCGGAATGACCAGGT
GGTACAGACCTCAGGCTGTGGATGCGGCAGACCTGCTCCACGCTCTCGGGCCTCCTCTGGGAGCTCATT
AGGACCATGGTGGATCGGGCAGAGGGCGGAACGTGATGTTCTTCCCAGGGTACACCCATTTGCAGAGGG
CCCAGCCCATCCGCTGGAGCCACTGGATTCTGAGCCACGCCGTGGCACTGACCCGAGACTCTGAGCGGT
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GTGGACCGAGAGCTGCTCCGAGCAGAATCAACTTTGGGGCCATCACTCTCAACAGCATGGATGCCACTA
GTGAGCGGGACTTTGTGGCCGAGTTCCTGTTCTGGGCTTCGCTGTGCATGACCCATCTCAGCAGGATGCC
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AGCAGCCTGATGCCCCAGAAGAAAACCCCGACAGTTTGGAGCTGATCCGGAGCAAAGGCTGGGCGTGTGT
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GGACAAGGAAGCTGTGTTTGAAGTGTGAGACACTATGAGTGCCGTGCTCCAGGTGGCCACTGGCGTCATC
TCTACGCTGCAGATTCACCAAGAGAATCGGGACAGGCTCTCAGCCCCGACATGTGGCCACTGACCTTG
CCTATTACCTGGTCCGAAAGGGATGCCATTCGCCAGGCCACGAGGCTCCGGGAAAGCTGTGTTTCAT
GGCCGAGACCAAGGGGTGCGCCTCAACAGCTGTCACTGCAGGAGCTGCAGACCATCAGCCCCCTGTTT
TCGGGCGACGTGATCTGCGTGTGGGACTACGGCACAGTGTGGAGCAGTATGGTGCCTGGGCGGCACTG
CGCGCTCCAGCGTCCGACTGGCAGATCCGCCAGGTGCGGGCGCTACTGCAGGCACAGCAGGCTAG
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5' Read Nucleotide Sequence: >OriGene 5' read for NM_000048 unedited
 GTGAATTTGTATACGACTCCTATAGGGCGGCCGATTCCGGCACGAGGGANAGAGAGAGA
 GA
 GA
 CCGGATGGGCGGGACGGGCGTGGAGGACCCGAGCACCCTGGCGCGCGCTCACGTCCGCG
 GGACCCCTGCTGGCCAAGGAGGTGTCAGTCCGGTCTTGTCTTCCAGACCCGGAGGACCG
 AAGCTTCCGGACGACGAGGAACCGCCCAACATGGCCTCTGAGAGTGGGAAGCTTTGGGGT
 GGCCGGTTTGTGGGTGACGTGGACCCCATCATGGAGAAGTTCAACGCGTCCATTGCCTAC
 GACCGGCACCTTTGGGAGGTGGATGTTCAAGGCAGCAAAGCCTACAGCTGGGGCCTGGAG
 AAGGCAGGGCTCCTACCAAGGCCGAGATGGACCAGATACTCCATGGCCTAGACAAGGTG
 GCTGAGGAGTGGGCCAGGGCACCTTCAAAGTGAAGTCCAATGATGAGGACATCCACACA
 GCCAATGAGCGCCGCTGAAGGAGCTCATTGGTGAACGGCAGGGAAGCTGCTCACGGGA
 CGGAGCCNGATGACCAGGTGGTACAGACCTCAGGCTGTGGATCGGCAGACCTGCTTC
 ACGCTCTCGGGCCTCCTCTGGGAGCTCATTATGACCATGGTGGATCGCGCAGATGCTGGA
 CGTGATGTTCTTCCCGGTACACCCATTTGCAGAGGGCCAGCCCATCCGCTGGAGCC
 ACTGGATTCTGAGCCACGCCGTGCACTTACCCGAGACTCTGAGCGGTTGT

3' Read Nucleotide Sequence: >OriGene 3' read for NM_000048 unedited
 GCGGGCCGAATCTAGAATCGAGTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
 TTTTTTTTTTCTCTCGCCCCACTTTTATTAGGGGCGAGGTGTGGAAGGACCTAGGCCT
 GTTGTGCTGCAATACCCCCGCACCTGGGGATCTGCCATTCAACCCTGGAGCGCCAG
 TGCCCCCAGGGCACCATACTGTCCACACTGGGCCGTAGTCCCACACCCAAATCACGT
 CCCCCGAAACAGGGGCTGATGGTCTGCAACTCTGCAGTGACAGTTGGTTGAGGGCGA
 CCCCTTGGTCTGGCCATGAACACAGTTTTCCGGAGGCCTTGGGGCCTGGCGGAATG
 GCATCCCTTTGCGGACCAGTAATAGGCAAGGTCAGGGGCCACCATGTGCGGGCTGAAAC
 CCTGTCCCATGTTCTCTTGGGGAATCTGCAGCGTAAAGATGACCCAGTGGCCACCTGGA
 GCACGGCACTCATAGGTCTGACACTTAAACACAGTTTCTTGGCCTCCTGTAAGTCTT
 TGTTGGAGGCGCTGGGAAATCCCTTGGGGTTCATCAGGAGCCCGAACACCGCCAAAAC
 ACCCCCCACCTTGTCTCGGAATAGCTCCAACTGTTGGGGTTTTTTTTTTGGGGCATAAGG
 CTGTTTCCCGTGTGGAGCATTTGAAGCTGCCCAAACCTGAATCCTTGGGGCAATAAAGA
 AAAGGCCCGCGCCTCCTGTTGAAAGGGTATGCCCGGAAAACCAACAGGACCTGGCCC
 AAAATCCCGTTACTATGGCATTCTGGCGTTGAAAGGATGGCCCAAATTGAATTTGTTTG
 AACAACTTTGGCCAACCAAGGGAAGGCGGAAGGGCCCTTCCCAGGGAGGAAATTTA
 TCCTTTCCACCTTAAAGCGCTAAAATTGGGG

Restriction Sites: NotI-NotI

ACCN: NM_000048

Insert Size: 1800 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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_000048.3](#), [NP_000039.2](#)

RefSeq Size: 1937 bp

RefSeq ORF: 1395 bp

Locus ID: 435

UniProt ID: [P04424](#)

Cytogenetics: 7q11.21

Domains: lyase_1

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 (2) differs in the 5' UTR compared to variant 1. Variants 1 and 2 encode the same isoform (1).