

Product datasheet for **SC110822**

Adenylosuccinate Lyase (ADSL) (NM_000026) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Adenylosuccinate Lyase (ADSL) (NM_000026) Human Untagged Clone
Tag:	Tag Free
Symbol:	Adenylosuccinate Lyase
Synonyms:	AMPS; ASASE; ASL
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_000026, the custom clone sequence may differ by one or more nucleotides

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ATGGCGGCTGGAGGCGATCATGGTTCGCCCGACAGCTACCGCTCACCTCTTGCCTCCCGCTATGCCAGCC
CGGAGATGTGCTTCGTGTTAGCGACAGGTATAAATCCGGACATGGCGGCAGCTGTGGCTGTGGCTGGC
GGAGGCCGAGCAGACATTGGGTTTGCCTATCACAGATGAACAAATCCAGGAGATGAAATCAAACCTGGAG
AACATCGACTTCAAGATGGCAGCTGAGGAAGAGAAACGTTTACGACATGATGTGATGGCTCACGTGCACA
CATTTGGCCACTGCTGTCCAAAAGCTGCAGGCATTATTCACCTTGGTGTACTTCTTGTATGTTGGAGA
CAATACTGACTTGATTATTCTTAGAAATGCACTTGACCTGCTTTTGCCAAAGCTTGCCAGAGTGATCTCT
CGCTTGGCGACTTTGCTAAGGAACGAGCCAGTCTACCCACATTAGGTTTACACATTTCCAGCCTGCAC
AGCTGACCACAGTTGGGAAACGTTGCTGTCTTTGGATTACAGATCTTGCATGGATCTCCAGAACTTGAA
GCGTGTCCGAGATGACCTGCGCTTCCGGGGAGTAAAGGGTACCACTGGCACTCAGGCCAGTTTCTCGCAG
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GAGCTTTCATCATCACAGGGCAGACATATACACGAAAAGTGGATATTGAAGTACTGTCTGTGCTGGCTAG
CTTGGGGGCATCAGTGCACAAGATTTGCACCGACATACGCTCCTGGCAAACCTCAAGGAGATGGAGGAA
CCCTTTGAAAAACAGCAGATTGGCTCAAGTGGCATGCCATATAAGCGGAATCCCATGCGTTCAGAACGTT
GCTGCAGTCTTGGCCGCCACCTGATGACCCTTGTATGGACCCGCTACAGACAGCATCTGTCCAGTGGTT
TGAACGCACACTGGATGATAGTGCCAACCGACGGATCTGTTTGGCCGAGGCATTTCTACCGCAGATACT
ATATTGAATACGCTGCAGAACATTTCTGAAGGATTGGTGTGTACCCCAAAGTAATTGAACGGCGCATTCT
GGCAAGAGCTGCCTTTCATGGCCACAGAGAACATCATCATGGCCATGGTCAAAGCTGGAGGTAGCCGCCA
GGATTGCCATGAGAAAATCAGAGTGCTTCTCAGCAGGCAGCTTCTGTGGTTAAGCAGGAAGGGGTGAC
AATGACCTCATAGAGCGTATCCAGGTTGATGCCTACTTCACTCCATTCACTCCAGTTGGATCATTTAC
TGGATCCTTCTTCTTCACTGGTGTGCTCCAGCAGGTGCAGAGATTCTTAGAAGAGGAGGTGTATCC
CCTGTTAAACCATATGAAAGCGTGATGAAGGTGAAAGCAGAATTATGTCTGTAG

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5' Read Nucleotide Sequence:	<p>>OriGene 5' read for NM_000026 unedited</p> <pre>CGTCAGATTTGAACTCGACTCATATAGGCGGCCCTNAATCGGCACGAGGCCTCGTGCCG AATTTCGGCAGCAGGCAGGGTTGGGATGGCGGCTGGAGGCGATCATGGTTCGCCCGACAGC TACCGCTCACCTTTGCTCCCGCTATGCCAGCCCGGAGATGTGCTTCGTGTTTAGCGAC AGGTATAAATCCGGACATGGCGGCAGCTGTGGCTGTGGCTGGCGGAGGCCGAGCAGACA TTGGGTTTGCCTATCACAGATGAACAAATCCAGGAGATGAAATCAAACCTGGAGAACATC GACTTCAAGATGGCAGCTGAGGAAGAGAAACGTTTACGACATGATGTGATGGCTCACGTG CACCATTTGGCCACTGCTGTCCAAAAGCTGCAGGCATTATTCACCTTGGTGCTACTTCT TGCTATGTTGGAGACAATACTGACTTGATTATTCTTAGAAATGCACCTTGACCTGCTTTTG CCAAAGCTTGGCAGAGTGATCTCTCGGCTTGGCGACTTTGCTAAGGAACGAGCCAGTCTA CCCACATTAGGTTTACACATTTCCAGCCTGCACAGCTGACCACAGTTGGGAAACGTTGC TGTCTTTGGATTGAGGATCTTGCATGGATCTCCAGAACTGAAGCGTGTCCGAGATGAC CTGCGCTTCCGGGGAGTAAAGGGTACCACTGGCACTCAGGCCAGTTTCTGCAGCTTTT GAGGGAGATGACCATAANGTAGAGCAGCTTACTAGATGGTGACAGACAAGGCAGGATTT TAGAGAGCTTTCATCATCACAGGGCAGACATATACACGAAAAGTGATAATGCAGTACTG TCTGTGCTGGCTAGCTTGNNGNCATCAGTGCACAGATTTGCACTGACTACCCCTCTGCCA AACTCAGGAGATGTAGCACCCCTTTGAC</pre>
3' Read Nucleotide Sequence:	<p>>OriGene 3' read for NM_000026 unedited</p> <pre>TCGACATATAAATGATTTTCGTTTAAATCTCTTCCAACCTACATACATAATTCTGCTT TCACCTTCATCACGCTTTCATATGGTTTTAACAGGGGATACACCTCCTCTTAAGAATC TCTGCACCTGCTGGGAGGCACGACCAGTAAAGAAGAAGGATCCAGTAAATGATCCAAC GGGAGTGAATGGGACTGAAGTAGGCATCAACCTGGATACGCTCTATGAGGTCATTGTGAC CCCTTCTCTGCTTAACCACAGAAGCTGCCTGCTGAGAAAGCACTCTGATTTTCTCATGGC AATCCTGGCGGCTACCTCCAGCTTTGACCATGGCCATGATGATGTTCTCTGTGGCCATGA AAGGCAGCTCTTGCCGAATGCGCCGTTCAATTACTTTGGGGTACACGACCAATCCTTCAG AAATGTTCTGCAGCGTATTCAATATAGTATCTGCGGTAAGAAATGCCTCGGCCAAACAGA TCCGTCGGTTGGCACTATCATCCAGTGTGCGTTCAAACCACTGGACAGATGCTGTCTGTA GCGGGTCCATGACAAGGGTCATCATGTGGCGGGCAAGACTGCAGCAACGTTCTGAACGCA TGGGATCCGCTTATATGGCATCGCACTTGAGCCAATCTGCTGTTTTTCAAAGGGTTCCT CCATCTNCTTGAGTTGCCAGGAGCGTATGTGCGTGCAAACTCTGTGCACTGATGCCCC CAAGTAGCCAGCACAGACAGTACTTAATATCCACTTTCCTGTATATGTCTGCCCTGTGA TGATGATAGCTCTCTTAAATCCTGCCTTTTCTGTCAACATCTTGTCAAGCTGCTCTACCT TATGGTCATTTCCCTAAAGGACTGCAAGAACTGGCCCTGATGCCATTGTTTCCCTTTTC TCCCAGGATCGCAGTTATCTCCGGCAGCTTAATGTCTGGAAATCCTCAAATTCCTGAT CCAAACACGTACGTTCCAACCTGGGGCACN</pre>
Restriction Sites:	NotI-NotI
ACCN:	NM_000026
Insert Size:	1650 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_000026.1](#), [NP_000017.1](#)

RefSeq Size: 1692 bp

RefSeq ORF: 1455 bp

Locus ID: 158

UniProt ID: [P30566](#)

Cytogenetics: 22q13.1

Domains: lyase_1

Protein Families: Druggable Genome

Protein Pathways: Alanine, aspartate and glutamate metabolism, Metabolic pathways, Purine metabolism

Gene Summary: The protein encoded by this gene belongs to the lyase 1 family. It is an essential enzyme involved in purine metabolism, and catalyzes two non-sequential reactions in the de novo purine biosynthetic pathway: the conversion of succinylaminoimidazole carboxamide ribotide (SAICAR) to aminoimidazole carboxamide ribotide (AICAR) and the conversion of adenylosuccinate (S-AMP) to adenosine monophosphate (AMP). Mutations in this gene are associated with adenylosuccinase deficiency (ADSLD), a disorder marked with psychomotor retardation, epilepsy or autistic features. Alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Dec 2015]
Transcript Variant: This variant (1) represents the predominant transcript and encodes the longest isoform (a).