

Product datasheet for **RG200524**

Adenylosuccinate Lyase (ADSL) (NM_000026) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Adenylosuccinate Lyase (ADSL) (NM_000026) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Adenylosuccinate Lyase
Synonyms:	AMPS; ASASE; ASL
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG200524 representing NM_000026
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCGGCTGGAGGCGATCATGGTTCGCCCGACAGCTACCGCTCACCTCTTGCCCTCCCGCTATGCCAGCC
 CGGAGATGTGCTTCGTGTTTAGCGACAGGTATAAATCCGGACATGGCGGCAGCTGTGGCTGGCTGGC
 GGAGGCCGAGCAGACATTGGGTTTGCTATCACAGATGAACAAATCCAGGAGATGAAATCAAACCTGGAG
 AACATCGACTTCAAGATGGCAGCTGAGGAAGAGAAACGTTTACGACATGATGTGATGGCTCACGTGCACA
 CATTGGCCACTGCTGTCCAAAAGCTGCAGGCATTATTACCTTGGTGTACTTCTTGCTATGTTGGAGA
 CAATACTGACTTGATTATTCTTAGAAATGCACTTGACCTGCTTTTGCCAAAAGCTTCCAGAGTGATCTCT
 CGGCTTGGCGACTTTGCTAAGGAACGAGCCAGTCTACCCACATTAGGTTTACACATTTCCAGCCTGCAC
 AGCTGACCACAGTTGGGAAACGTTGCTGTCTTTGGATTAGGATCTTTGCATGGATCTCCAGAACTTGAA
 GCGTGTCCGAGATGACCTGCGCTTCCGGGGAGTAAAGGGTACCACTGGCACTCAGGCCAGTTTCTCGAC
 CTCTTTGAGGGAGATGACCATAAGGTAGAGCAGCTTGACAAGATGGTGACAGAAAAGGCAGGATTTAAGA
 GAGCTTTCATCATCACAGGGCAGACATATACAGAAAAGTGGATATTGAAGTACTGTCTGTGCTGGCTAG
 CTTGGGGGCATCAGTGCACAAGATTTGCACCGACATACGCCTCCTGGCAAACCTCAAGGAGATGGAGGAA
 CCCTTTGAAAAACAGCAGATTGGCTCAAGTGGCATGCCATATAAGCGGAAATCCATGCGTTCAGAACGTT
 GCTGCAGTCTTGGCCGCCACCTGATGACCCTTGTATGGACCCGCTACAGACAGCATCTGTCCAGTGGTT
 TGAACGCACACTGGATGATAGTGCAACCGACGGATCTGTTTGGCCGAGGCATTTCTTACCGCAGATACT
 ATATTGAATACGCTGCAGAACATTTCTGAAGGATTGGTCGTGTACCCCAAAGTAATTGAACGGCCGATTC
 GGCAAGAGCTGCCTTTCATGGCCACAGAGAACATCATATGGCCATGGTCAAAGCTGGAGTAGCCGCCA
 GGATTGCCATGAGAAAATCAGAGTGCTTTCTCAGCAGGCAGCTTCTGTGGTTAAGCAGGAAGGGGGTGAC
 AATGACCTCATAGAGCGTATCCAGGTTGATGCCTACTTCACTCCCATTCCTCCAGTTGGATCATTAC
 TGGATCCTTCTTCTTCACTGGTCGTGCCTCCAGCAGGTGCAGAGATTCTTAGAAGAGGAGGTGTATCC
 CCTGTTAAAACCATATGAAAGCGTGATGAAGGTGAAAGCAGAATTATGTCTG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG200524 representing NM_000026
 Red=Cloning site Green=Tags(s)

MAAGGDHGSPDSYRSPLASRYASPEMCFVFSDRYKFRWRLWLWLAEEQTLGLPITDEQIQEMKSNLE
 NIDFKMAAEEKRLRHDVMAHVHTFGHCCPKAAGIIHLGATSCYVDNTDLIILRNALDLLPKLARVIS
 RLADFAKERASLPTLGFTHFQPAQLTTVGKRCCLWIQDLCMDLQNLKVRDRLFRGVKGTGTQASFLQ
 LFEQDDHKVEQLDKMVTEKAGFKRAFIIITGQTYTRKVDIEVLSVLASLGASVHKICTDIRLLANLKEMEE
 PFEKQQIGSSAMPYKRNPMRSECCSLARHMTLVMDPLQTASVQWFERTLDDSANRRICLAEAFLTADT
 ILNLTQNISEGLVVPKVIERRIRQELPFMATENIIMAMVKAGGSRQDCHEKIRVLSQQAASVVKQEGGD
 NDLIERIQVDAYFSPIHSQDLHLLDPSSFTGRASQVQRFLEEEVYPLLPYESVMKVKAELCL

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_000026

ORF Size: 1452 bp

OTI Disclaimer: 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_000026.4](#)

RefSeq Size: 1692 bp

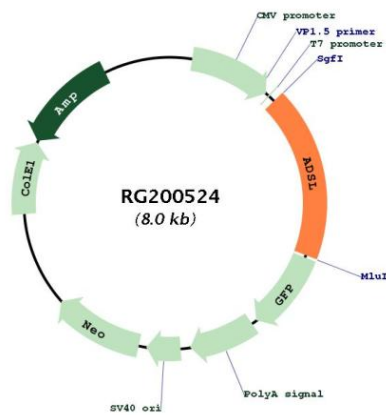
RefSeq ORF: 1455 bp

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]

Product images:



Circular map for RG200524