

Product datasheet for **RC200524**

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:	Myc-DDK
Symbol:	Adenylosuccinate Lyase
Synonyms:	AMPS; ASASE; ASL
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC200524 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCGGTGGAGGCGATCATGGTTCGCCCGACAGCTACCGCTCACCTCTTGCCCTCCCGCTATGCCAGCC
 CGGAGATGTGCTTCGTGTTTAGCGACAGGTATAAATCCGGACATGGCGGACAGCTGTGGCTGGCTGGC
 GGAGGCCGAGCAGACATTGGGTTTGCTATCACAGATGAACAAATCCAGGAGATGAAATCAAACCTGGAG
 AACATCGACTTCAAGATGGCAGCTGAGGAAGAGAAACGTTTACGACATGATGTGATGGCTCACGTGCACA
 CATTGGCCACTGCTGTCCAAAAGCTGCAGGCATTATTACCTTGGTGTACTTCTTGCTATGTTGGAGA
 CAATACTGACTTGATTATTCTTAGAAATGCACTTGACCTGCTTTTGCCAAAAGCTTCCAGAGTGATCTCT
 CGGCTTGGCGACTTTGCTAAGGAACGAGCCAGTCTACCCACATTAGGTTTACACATTTCCAGCCTGCAC
 AGCTGACCACAGTTGGGAAACGTTGCTGTCTTTGGATTAGGATCTTTGCATGGATCTCCAGAACTGAA
 GCGTGTCCGAGATGACCTGCGCTTCCGGGGAGTAAAGGGTACCACTGGCACTCAGGCCAGTTTCTCGAC
 CTCTTTGAGGGAGATGACCATAAGGTAGAGCAGCTTGACAAGATGGTGACAGAAAAGGCAGGATTTAAGA
 GAGCTTTCATCATCACAGGGCAGACATATACAGAAAAGTGGATATTGAAGTACTGTCTGTGCTGGCTAG
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 CCCTTTGAAAAACAGCAGATTGGCTCAAGTGGCATGCCATATAAGCGGAAATCCATGCGTTCAGAACGTT
 GCTGCAGTCTTGGCCGCCACCTGATGACCCTTGTATGGACCCGCTACAGACAGCATCTGTCCAGTGGTT
 TGAACGCACACTGGATGATAGTGCAACCGACGGATCTGTTTGGCCGAGGCATTTCTTACCGCAGATACT
 ATATTGAATACGCTGCAGAACATTTCTGAAGGATTGGTCGTGTACCCCAAAGTAATTGAACGGCGCATT
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 GGATTGCCATGAGAAAATCAGAGTGCTTTCTCAGCAGGCAGCTTCTGTGGTTAAGCAGGAAGGGGGTGAC
 AATGACCTCATAGAGCGTATCCAGGTTGATGCCTACTTCACTCCCATTCCTCCAGTTGGATCATTAC
 TGGATCCTTCTTCTTACTGGTCGTGCCTCCCAGCAGGTGCAGAGATTCTTAGAAGAGGAGGTGTATCC
 CCTGTTAAACCATATGAAAGCGTGATGAAGGTGAAAGCAGAATTATGTCTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC200524 protein sequence
 Red=Cloning site Green=Tags(s)

MAAGGDHGSYRSPASRYASPEMCFVFSRYKFRTRQLWLWLAEEQTLGLPITDEQIQEMKSNLE
 NIDFKMAAEEERLRHDVMAHVHTFGHCCPKAAGIIHLGATSCYVGDNTDLIILRNALDLLPKLARVIS
 RLADFAKERASLPTLGFTHFQPAQLTTVGRKCLWIQDLCMDLQNLKRVDDLRFRGVKGTGTQASFLQ
 LFEGDDHKVEQLDKMVTEKAGFKRAFIIITGQTYTRKVDIEVLSVLASLGASVHKICTDIRLLANLKEMEE
 PFEKQQIGSSAMPYKRNPMRSECCSLARHMLTMLVMDPLQTASVQWFERTLDDSANRRICLAEFLTADT
 ILNLTQNISEGLVVPKVIERRIRQELPFMATENIIMAMVKAGGSRQDCHEKIRVLSQQAASVVKQEGGD
 NDLIERIQVDAYFSPIHSQDLHLLDPSSFTGRASQVQRFLVEEVYPLLKPYESVMKVKAELCL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

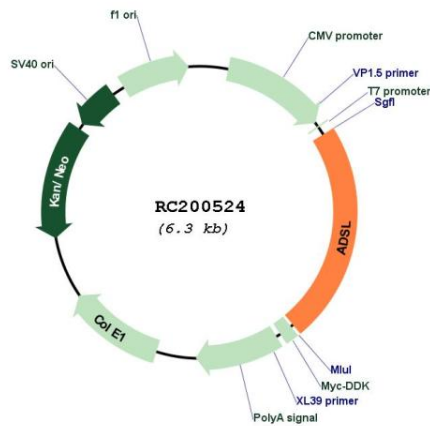
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Restriction Sites:

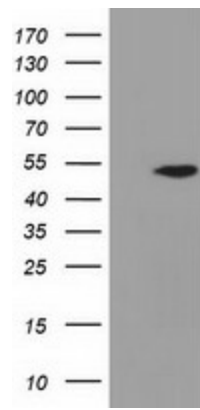
Sgfl-Mlul

UniProt ID:	P30566
Cytogenetics:	22q13.1
Domains:	lyase_1
Protein Families:	Druggable Genome
Protein Pathways:	Alanine, aspartate and glutamate metabolism, Metabolic pathways, Purine metabolism
MW:	54.9 kDa
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]

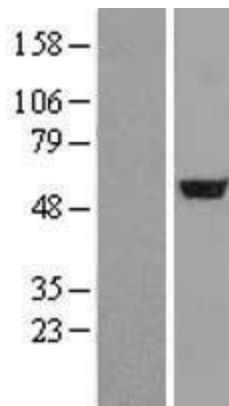
Product images:



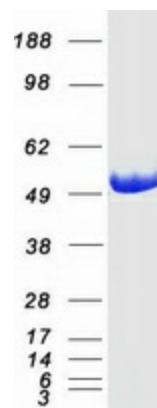
Circular map for RC200524



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ADSL (Cat# RC200524, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ADSL (Cat# [TA501810]). Positive lysates [LY424970] (100ug) and [LC424970] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY424970]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200524 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ADSL protein (Cat# [TP300524]). The protein was produced from HEK293T cells transfected with ADSL cDNA clone (Cat# RC200524) using MegaTran 2.0 (Cat# [TT210002]).