
Product Data Sheet

Product Name: ADSL Human
 Cat. No.: GP21366
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Adenylosuccinate lyase; ASL; Adenylosuccinase; ASase; ADSL; AMPS.		
Amino Acid Sequence	MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGSMAAG GDHGSPDSYR SPLASRYASP EMCVFVSDRY KFRTWRQLWL WLAEAEQTLG LPITDEQIQE MKSNLENIDF KMAAEEEEKRL RHDVMAHVHT FGHCCPKAAG IIHLGATSCY VGDNTDLIIL RNALDLLLPK LARVISRLAD FAKERASLPT LGFTHFQPAQ LTTVGKRCCL WIQDLCMDLQ NLKRVRDDL RFRGVKGTGT QASFLQLFEG DDHKVEQLDK MVTEKAGFKR AFIITGQTYT RKVDIEVLSV LASLGASVHK ICTDIRLLAN LKEMEEPFEK QQIGSSAMPY KRNPMSERC CSLARHLMTL VMDPLQTASV QWFERTLDDS ANRRICLAEA FLTADTILNT LQNISEGLVV YPKVIERRIR QELPFMATEN IIMAMVKAGG SRQDCHEKIR VLSQQAASVV KQEGGDNDLI ERIQVDAYFS PIHSQLDHELL DPSSFTGRAS QQVQRFLEEE VYPLLKPYES VMKVKAELCL.		
Formulation	The ADSL solution (1mg/ml) contains 20mM Tris-HCl buffer (pH 8.0), 1mM DTT, 40% glycerol and 0.1M NaCl.		

Introduction

Adenylosuccinate lyase (ADSL) is an enzyme which converts adenylosuccinate to AMP and fumarate as part of the purine nucleotide cycle. ADSL is involved in both de novo synthesis of purines and formation of adenosine monophosphate from inosine monophosphate. ADSL catalyzes 2 reactions in AMP biosynthesis: the removal of a fumarate from succinylaminoimidazole carboxamide (SAICA) ribotide to yield aminoimidazole carboxamide ribotide (AICA) and removal of fumarate from adenylosuccinate to yield AMP. Defects in the ADSL are the cause of adenylosuccinase deficiency (ADSL deficiency). ADSL deficiency is an autosomal recessive disorder distinguished by the accumulation in the body fluids of succinylaminoimidazole-

Caution: Product has not been fully validated for medical applications. For research use only.

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carboxamide riboside (SAICA-riboside) and succinyladenosine (S-Ado). Adenylosuccinase deficiency results in succinylpurinemic autism, psychomotor retardation, and in some cases, growth retardation associated with muscle wasting and epilepsy.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

ADSL Human Recombinant produced in E.coli is a single, non-glycosylated polypeptide chain containing 520 amino acids (1-484) and having a molecular mass of 59kDa. ADSL is fused to a 36 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

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