Human ADSL / Adenylosuccinate Lyase Protein (His Tag)

Catalog Number: **11287-H07E**

Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

AMPS; ASASE; ASL; Adl; Asl

Protein Construction:

A DNA sequence encoding the human ADSL (P30566-1) (Met 1-Leu 484) was expressed, with a polyhistidine tag at the N-terminus.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Endotoxin:

Please contact us for more information.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Met

Molecular Mass:

The recombinant human ADSL comprises 500 amino acids and has a predicted molecular mass of 57 kDa. It migrates as an approximately 53 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, 10% glycerol, pH 7.5

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

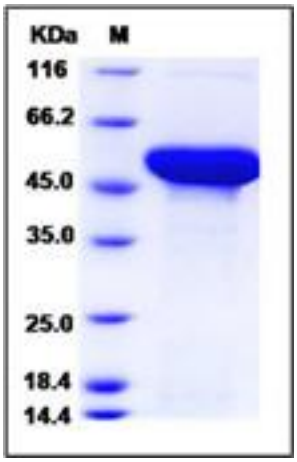
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Adenylosuccinate lyase, also known as adenylosuccinase, ADSL or ASL, is an enzyme implicated in the reaction of adenylosuccinat converting to AMP and fumarate as part of the purine nucleotide cycle. The two substates of adenylosuccinate lyase (ADSL) are dephosphorylated derivatives of SAICA ribotide (SAICAR) and adenylosuccinate (S-AMP), which catalyzes an important reaction in the de novo pathway of purine biosynthesis. ADSL catalyzes two distinct reactions in the synthesis of purine nucleotides, both of which involve the _-elimination of fumarate to produce either aminoimidazole carboxamide ribotide from SAICAR or AMP from S-AMP. The Adenylosuccinate lyase deficiency is a rare autosomal recessive metabolic disorder characterized by the present of SAICA riboside and succinyladenosine (S-Ado). ADSL defect in different patients is often caused by different mutations to the enzyme.

References

1.Nassogne M, *et al.* (2000) Adenylosuccinase deficiency: an unusual cause of early-onset epilepsy associated with acquired microcephaly. Brain and development. 22 (6): 383-6.
2.Sivendran S, *et al.* (2004) Two novel mutant human adenylosuccinate lyases (ASLs) associated with autism and characterization of the equivalent mutant Bacillus subtilis ASL. J Biol Chem. 279 (51): 53789-97.
3.Lee TT, *et al.* (1999) His68 and His141 are critical contributors to the intersubunit catalytic site of adenylosuccinate lyase of Bacillus subtilis. Biochemistry. 38 (1): 22-32.