Recombinant human Argininosuccinate lyase/ASL protein

Catalog Number: ATGP1271

PRODUCT INFORMATION

Expression system
E.coli

Domain
1-464aa

UniProt No.
P04424

NCBI Accession No.
NP_000039

Alternative Names
Argininosuccinate lyase, ASAL

PRODUCT SPECIFICATION

Molecular Weight
53.8 kDa (484aa)

Concentration
0.5mg/ml (determined by Bradford assay)

Formulation
Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 2mM DTT, 10% glycerol, 100mM NaCl

Purity
> 95% by SDS-PAGE

Tag
His-Tag

Application
SDS-PAGE

Storage Condition
Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description
ASL (argininosuccinate lyase) belongs to the lyase 1 family. ASL is an enzyme that catalyzes the reversible breakdown of argininosuccinate (ASA) producing the amino acids arginine and fumarate. Located in liver cytosol, ASL is the fourth enzyme of the urea cycle and involved in the biosynthesis of arginine in all species and the production of urea in ureotelic species. While ASS (argininosuccinate synthetase) catalyzes the formation of argininosuccinate from citrulline and aspartate, ASL breaks the newly formed argininosuccinate into L-arginine and fumarate. L-arginine continues through the urea cycle to form urea and orinthine, while fumarate can enter

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the citric acid cycle. Recombinant human ASL protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

Amino acid Sequence

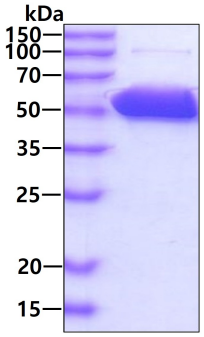
<MGSSHHHHHH SSGLVPRGSH> MASESGKLWG GRFVGAVDPI MEKFNASIAY DRHLWEVDVQ GSKAYSRGLE KAGLLTKAEM DQILHGLDKV AEEWAQGTFK LNSNDEDIHT ANERRLKELI GATAGKLHTG RSRNDQVVTD LRLWMRQTCS TLSGLLWELI RTMVDRAEAE RDVLFPGYTH LQRAQPIRWS HWILSHAVAL TRDSERLLEV RKRINVLPLG SGAIAGNPLG VDRELLRAEL NFGAITLNSM DATSERDFVA EFLFWASLCM THLSRMAEDL ILYCTKEFSF VQLSDAYSTG SSLMPQKKNP DSLELIRSKA GRVFGRCAGL LMTLKGLPST YNKDLQEDKE AVFEVSDTMS AVLQVATGVI STLQIHQENM GQALSPDMLA TDLAYYLVRK GMPFRQAHEA SGKAVFMAET KGVALNQLSL QELQTISPLF SGDVICVWDY GHSVEQYGAL GGTARSSVDW QIRQVRALLQ AQQA

General References

Barbosa P, et al. (2008). J Biol Chem. 266(8):5286-90
Zhao S., et al (2010) Science 327:1000-1004

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.