Recombinant Human Argininosuccinate Lyase, His-tagged

Cat. No. ASL-1271H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human ASL protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.
Species	Human
Source	Human
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 the citric acid cycle.
Form	Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 2mM DTT, 10% glycerol, 100mM NaCl
Molecular Weight	53.8kDa (484aa)
Purity	> 95% by SDS - PAGE
Concentration	0.5mg/ml (determined by Bradford assay)

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Sequences of amino acids	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
Storage	Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.
Pathways	Alanine and aspartate metabolism; Alanine, aspartate and glutamate metabolism; Arginine and proline metabolism; Metabolic pathways; Metabolism of amino acids and derivatives; Urea cycle; Urea cycle and metabolism of amino groups; arginine biosynthesis IV

GENE INFORMATION

Gene Name	ASL argininosuccinate lyase [Homo sapiens]
Official Symbol	ASL
Synonyms	ASL; ASAL; argininosuccinate lyase; arginosuccinase; argininosuccinase; OTTHUMP00000159903; OTTHUMP00000210324; OTTHUMP00000210325; OTTHUMP00000210326; OTTHUMP00000210327
Gene ID	435

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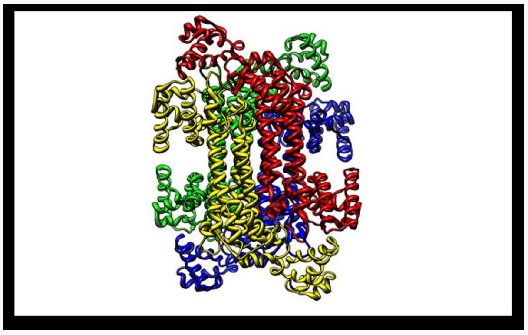
mRNA Refseq	NM_000048
Protein Refseq	NP_000039
MIM	608310
UniProt ID	P04424
Chromosome Location	7cen-q11.2
Function	argininosuccinate lyase activity; catalytic activity; lyase activity
Crystal structure of duck argininosuccinate lyase with bound argininosuccinate	

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