

# Recombinant Human Argininosuccinate Synthase 1, His-tagged

**Cat. No.** ASS1-777H    **Lot. No.** (See product label)

## SPECIFICATION

### Product Overview

Recombinant human ASS1 protein, fused to His-tag at N-terminus, was expressed in *E.coli* and purified by using conventional chromatography techniques. MW =48.6 kDa (432aa) confirmed by MALDI-TOF.

### Species

Human

### Source

*E.coli*

### Description

The ASS1 is an enzyme called argininosuccinate synthase 1. This enzyme participates in the urea cycle, which is a sequence of chemical reactions that takes place in liver cells. The urea cycle processes excess nitrogen that is generated as the body uses proteins. The excess nitrogen is used to make a compound called urea, which is excreted from the body in urine.

### Sequences Of Amino Acids

MGSSHHHHHH SSGLVPRGSH MSSKGSVLA YSGGLDTSCI LVWLKEQGYD  
 VIAYLANIGQ KEDFEEARKK ALKLGAKKVF IEDVSREFVEEFIWPAIQSS  
 ALYEDRYLLG TSLARPCAR KQVEIAQREG AKYVSHGATG KGNDQVR FEL  
 SCYSLAPQIK VIAPWRMPEF YNRFKGRNDL MEYAKQH GIP IPVTPKNPWS  
 MDENLMHISY EAGILENPKN QAPPGLYTKT QDPAKAPNTP DILEIEFKKG  
 VPKVVTNVKD GTTHQTSLELFMYLNEVAGK HGVGRIDIVE NRFIGMKSRG  
 IYETPAGTIL YHAHLDIEAF TMDREVRKIK QGLGLKFAEL VYTGFWHSPE  
 CEFVRH CIAK SQERVEGKVQ VSVLKGQVYI LGRESPLSLY NEELVSMNVQ  
 GDYEPTDATG FININSLRLK EYHRLQSKVT AK

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|                      |                                                                                                                                                       |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Purity</b>        | > 90% by SDS – PAGE.                                                                                                                                  |
| <b>Form</b>          | Liquid. In 20 mM Tris-HCl buffer (pH8.0) containing 20% glycerol 0.1M NaCl,1mM DTT.                                                                   |
| <b>Concentration</b> | 0.5 mg/ml (determined by Bradford assay).                                                                                                             |
| <b>Storage</b>       | 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. |

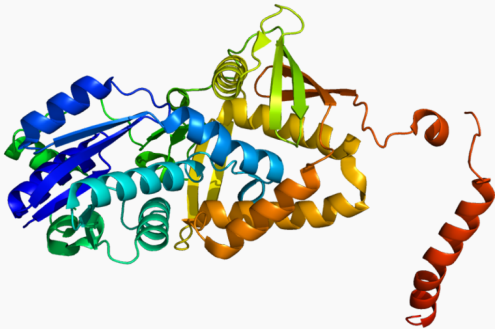
## GENE INFORMATION

|                            |                                                                                                                                                                                                                                                         |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>           | <a href="#">ASS1</a> argininosuccinate synthase 1 [ Homo sapiens ]                                                                                                                                                                                      |
| <b>Synonyms</b>            | ASS1; argininosuccinate synthase 1; ASS; CTLN1; argininosuccinate synthase; OTTHUMP00000022363; OTTHUMP00000022364; citrulline-aspartate ligase; citrulline--aspartate ligase; argininosuccinate synthetase 1; EC 6.3.4.5; argininosuccinate synthetase |
| <b>Gene ID</b>             | <a href="#">445</a>                                                                                                                                                                                                                                     |
| <b>mRNA Refseq</b>         | <a href="#">NM_000050</a>                                                                                                                                                                                                                               |
| <b>Protein Refseq</b>      | <a href="#">NP_000041</a>                                                                                                                                                                                                                               |
| <b>MIM</b>                 | <a href="#">603470</a>                                                                                                                                                                                                                                  |
| <b>UniProt ID</b>          | <a href="#">P00966</a>                                                                                                                                                                                                                                  |
| <b>Chromosome Location</b> | 9q34.1                                                                                                                                                                                                                                                  |

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|                                     |                                                                                                        |
|-------------------------------------|--------------------------------------------------------------------------------------------------------|
| <b>Pathway</b>                      | Alanine, aspartate and glutamate metabolism; Arginine and proline metabolism; Metabolic pathways       |
| <b>Function</b>                     | ATP binding; argininosuccinate synthase activity; ligase activity; nucleotide binding; protein binding |
| <b>PDB rendering based on 2nz2.</b> |                      |