

ADSL/Adenylosuccinate Lyase Protein, Human (His)

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| Cat. No.: | HY-P75565 |
| Synonyms: | Adenylosuccinate lyase; ADSL; ASL; Asase; AMPS |
| Species: | Human |
| Source: | E. coli |
| Accession: | P30566-1 (M1-L484) |
| Gene ID: | 158 |
| Molecular Weight: | Approximately 56 kDa |

PROPERTIES

AA Sequence

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|-------------|-------------|-------------|-------------|
| MAAGGDHGS P | DSYRSPLAS R | YASPEMCFV F | SDRYKFRTWR |
| QLWLWLAEE E | QTLGLPITDE | QIQEMKSNLE | NIDFKMAAEE |
| EKRLRHDVMA | HVHTFGHCCP | KAAGIIHLGA | TSCYVGDNTD |
| LIILRNALDL | LLPKLARVIS | RLADFAKERA | SLPTLGFTHF |
| QPAQLTTVGK | RCCLWIQDLC | MDLQNLKRVR | DDLRFRGVKG |
| TTGTQASFLQ | LFEGDDHKVE | QLDKMVTEKA | GFKRAFIITG |
| QTYTRKVDIE | VLSVLASLGA | SVHKICTDIR | LLANLKEMEE |
| PFEKQQIGSS | AMPYKRNPMPR | SERCCSLARH | LMTLVMDPLQ |
| TASVQWFERT | LDDSANRRIC | LAEAFLTADT | ILNTLQNI SE |
| GLVVYPKVE | RRIRQELPFM | ATENIIMAMV | KAGGSRQDCH |
| EKIRVLSQQA | ASVVKQEGGD | NDLIERIQVD | AYFSPIHSQL |
| DHLLDPSSFT | GRASQQVQRF | LEEEVYPLLK | PYESVMKVKA |
| ELCL | | | |

Biological Activity The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.

Appearance Lyophilized powder.

Formulation Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4, 10% Glycerol.

Endotoxin Level <1 EU/µg, determined by LAL method.

Reconstitution It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH₂O.

Storage & Stability Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

Shipping Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

ADSL (Adenylosuccinate Lyase) protein serves as the catalyst for two non-sequential steps in de novo AMP synthesis. Firstly, it converts (S)-2-(5-amino-1-(5-phospho-D-ribosyl)imidazole-4-carboxamido)succinate (SAICAR) to fumarate along with 5-amino-1-(5-phospho-D-ribosyl)imidazole-4-carboxamide, thereby contributing to de novo IMP synthesis. In a separate step, ADSL converts succinyladenosine monophosphate (SAMP) to AMP and fumarate. Through these enzymatic actions, ADSL plays a crucial role in the intricate metabolic pathway leading to the synthesis of adenosine monophosphate (AMP), a fundamental component in nucleotide biosynthesis.

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

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