

Human DARS Protein (His Tag)

Catalog Number: 14278-H07E



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

aspRS; HBSL; 5730439G15Rik

Protein Construction:

A DNA sequence encoding the mature form of human DARS (P14868) (Met1-Pro501) was expressed with a polyhistidine tag at the N-terminus.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 90 % 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 °C

Predicted N terminal: His

Molecular Mass:

The recombinant human DARS consists of 516 amino acids and predicts a molecular mass of 59 KDa. It migrates as an approximately 47 KDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 50mM Tris, 100mM NaCl, 10% glycerol, pH 8.0

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:

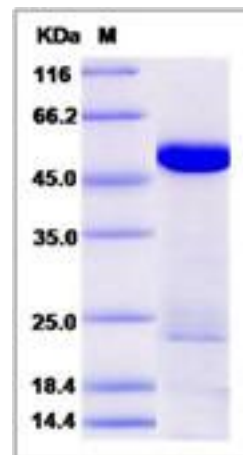
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Aspartate tRNA ligase 1, also known as DARS, is part of a multienzyme complex of aminoacyl-tRNA synthetases. It belongs to the class-II aminoacyl-tRNA synthetase family. DARS charges its cognate tRNA with aspartate during protein biosynthesis. DARS catalyzes the specific attachment of an amino acid to its cognate tRNA in a 2 step reaction: the amino acid(AA) is first activated by ATP to form AA-AMP and then transferred to the acceptor end of the tRNA.

References

- 1.Escalante C, *et al.* (1993) Expression of human aspartyl-tRNA synthetase in Escherichia coli. Functional analysis of the N-terminal putative amphiphilic helix. J Biol Chem. 268(8): 6014-23.
- 2.Maruyama K, *et al.* (1994) Oligo-capping: a simple method to replace the cap structure of eukaryotic mRNAs with oligoribonucleotides. Gene. 138(1-2):171-4.
- 3.Reed VS, *et al.* (1995) Mechanisms of the transfer of aminoacyl-tRNA from aminoacyl-tRNA synthetase to the elongation factor 1 alpha. J Biol Chem. 269(52):32932-6.

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