

Recombinant Mouse AARS/alanyl-tRNA synthetase Protein (His Tag)

Catalog No. PKSM040710

Description

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|------------------------|--------------------------|
| Synonyms | AI316495;C76919;sti |
| Species | Mouse |
| Expression_host | Baculovirus-Insect Cells |
| Sequence | Met1-Asn968 |
| Accession | Q8BGQ7 |
| Mol_Mass | 108.3 kDa |
| AP_Mol_Mass | 105 kDa |
| Tag | C-His |

Properties

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|-----------------------|---|
| Purity | > 88 % as determined by reducing SDS-PAGE. |
| Endotoxin | < 1.0 EU per µg as determined by the LAL method. |
| Storage | Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months. |
| Shipping | This product is provided as lyophilized powder which is shipped with ice packs. |
| Formulation | Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 7.4, 10% glycerol |
| Reconstitution | Please refer to the printed manual for detailed information. |

Background

Alanyl-tRNA synthetase (AARS) belongs to the family of ligases, specifically those forming carbon-oxygen bonds in aminoacyl-tRNA and related compounds. This enzyme participates in alanine and aspartate metabolism and aminoacyl-tRNA biosynthesis. Alanyl-tRNA synthetase (AlaRS) catalyzes synthesis of Ala-tRNA (Ala) and hydrolysis of mis-acylated Ser- and Gly-tRNA (Ala) at 2 different catalytic sites. Their role is not confined to catalyze the attachment of amino acids to transfer RNAs and thereby establish the rules of genetic code by virtue of matching the nucleotide triplet of anticodon with cognate amino acid. Under apoptotic conditions in cell culture, the full-length enzyme is secreted, and the two cytokine activities can be generated by leukocyte elastase, an extracellular protease. Secretion of this tRNA synthetase may contribute to apoptosis both by arresting translation and producing needed cytokines. This protein could be an attractive target of drugs against bacterial, fungal and parasitic infections.

SDS-PAGE

