PRODUCT INFORMATION

Expression system E.coli

Domain 43-289aa

UniProt No. P41250

NCBI Accession No. NP_002038

Alternative Names Glycyl-tRNA synthetase, CMT2D, DSMAV, GlyRS, HMN5, SMAD1

PRODUCT SPECIFICATION

Molecular Weight 30 kDa (270aa) confirmed by MALDI-TOF

Concentration 0.5mg/ml (determined by Bradford assay)

Formulation Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 0.15M NaCl, 10% glycerol, 1mM DTT

Purity > 85% by SDS-PAGE

Tag His-Tag

Application SDS-PAGE

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

GARS, also known as glycyl-tRNA synthetase, is one of the aminoacyl-tRNA synthetases that charge tRNAs with their cognate amino acids. This enzyme is an (alpha) 2 dimer which belongs to the class II family of tRNA synthetases. It has been shown to be a target of autoantibodies in the human autoimmune diseases, polymyositis or dermatomyositis. Recombinant human GARS protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.



Amino acid Sequence

<MGSSHHHHHH SSGLVPRGSH MGS>PISLPAA ASRSSMDGAG AEEVLAPLRL AVRQQGDLVR KLKEDKAPQV DVDKAVAELK ARKRVLEAKE LALQPKDDIV DRAKMEDTLK RRFFYDQAFA IYGGVSGLYD FGPVGCALKN NIIQTWRQHF IQEEQILEID CTMLTPEPVL KTSGHVDKFA DFMVKDVKNG ECFRADHLLK AHLQKLMSDK KCSVEKKSEM ESVLAQLDNY GQQELADLFV NYNVKSPITG NDLSPPVSFN LMFKTFIGPG

General References

Guo R.-T., et al. (2009) J. Biol. Chem. 284:28968-28976 Xie W., et al. (2007) Proc. Natl. Acad. Sci. u.S.A. 104:9976-9981

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain