



Human Histidy-tRNA Synthetase (Jo-1)

Origin:	Recombinant	Cat. No.:	41470
Tag:	N-terminal 6xHis	Size:	0.1 mg
Source:	<i>Spodoptera frugiperda</i> Sf9	Purity:	>95%
Other Names:	HARS	Species:	Human

Description

Expressed in insect Sf9 cells with total 533 AA. Mw: 60.4 KDa (calculated). N-terminal 6xHis-tag and TEV cleavage site, 25 extra AA (highlighted).

Recombinant antigen for research use or manufacturing only.

Introduction to the Molecule

During mRNA translation at ribosomes, specific amino-acyl-tRNA synthetases are required for the covalently attachment between tRNAs and different amino acids. Histidyl-tRNA synthetase (Jo-1) is specific for the amino acid histidine. Jo-1 is a frequent target of autoantibodies in the human autoimmune disease polymyositis and/or dermatomyositis.

Immunological Function

As an autoantigen, Jo-1 binds with IgG-type human auto-antibodies.

Amino Acid Sequence

MSYYHHHHHDYDIPPTTENLYFQGAAERAAL EELVKLQGERV RGLKQOKASAE LIEEEVAKLLKL
KAQLGPDESKQKFVLKTPKGTRDYS PRQMAVREKVF DVI IRCFKRHGAEVIDTPVFELKETLMGK
YGEDSKLIYDLKDQGGELLSLRYDLTVPFARYLAMNKL TNIKRYHI AKVYRRDNPAMTRGRYREF
YQCDFDIAGNFDPMIPDAECLKIMCEILSSLQIGDFLVKVNDRRILDGMFAICGVSDSKFRTICS
SVDKLDKVSWE EVKNEMVGEKGLAPEVADRIGDYVQQHGGVSLVEQLLQDPKLSQNKQALEGLGD
LKLLEFYLT LFGIDDKISFDLSLARGLDYYTGVIYEAVLLQTPAQAGEEPLGVGSVAAGGRYDGL
VGMFDPKGRKVPVGLSIGVERIF SIVEQRLEALEEKIRTTETQVLVASAQKLLLEERLKL VSEL
WDAGIKAELLYKKNPKLLNQLQYCEEAGIPLVAI IGEQELKDGVIKLR SVTSREEVDVRREDLVE
EIKRRTGQPLCIC

Applications

Standard ELISA test, line/dot assay and microarray assay with positive/negative sera panels.

Formulation

Lyophilized at 1 mg/mL in storage buffer (20mM Tris, 300mM NaCl, 10% glycerol, PH8.0).





Reconstitution

Add deionized water to prepare a working stock solution of approximately 1 mg/mL and let the lyophilized pellet dissolve completely.

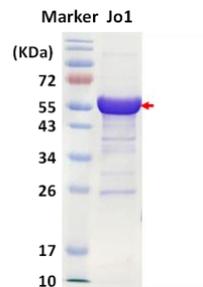
Storage

Store lyophilized protein at -20°C. Aliquot reconstituted protein and store at -80°C. Avoid repeated freezing /thawing cycles.

Quality Control Test

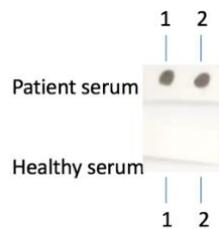
BCA to determine quantity of the protein.
SDS PAGE to determine purity of the protein.
Immunodot analysis to determine functionality of protein.

SDS-PAGE Gel



Dot blot assay

Dot blot analysis of Jo-1



Analysis of serum from healthy subjects and patients. Recombinant autoantigens were utilized in this dot-blot assay for validation

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