



## Human Histidy-tRNA Synthetase (Jo-1)

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

**MSYYHHHHHDYDIPPTTENLYFQGA**AERAALEELVKLQGERVRGLKQQKASAELEEEVAKLLKL  
KAQLGPDESKQKFVLKTPKGTRDYSRQMAVREKVFVDVIIRCFKRHGAEVIDTPVFELKETLMGK  
YGEDSKLIYDLKDQGGELLSLRYDLTVPFARYLAMNKLTNIKRYHIAKVYRRDNPAMTRGRYREF  
YQCDFDIAGNFDPMIPDAECLKIMCEILSSLQIGDFLVKVNDRIIDGMFAICGVSDSKFRTICS  
SVDKLDKVSWEVKNEMVGEKGLAPEVADRIGDYVQQHGGVSLVEQLLQDPKLSQNKQALEGLGD  
LKLLFEYLTFLFGIDDKISFDLSLARGLDYYTGVIYEAVLLQTPAQAGEEPLGVGSVAAGGRYDGL  
VGMFDPKGRKVPVGLSIGVERIFSIVEQRLEALEEKIRTTETQVLVASAQKKLLEERLKLVSSEL  
WDAGIKAELLYKKNPKLLNQLQYCEEAGIPLVAIIGEQLKDGVIKLRSVTSREEVDVRREDLVE  
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  $-20^{\circ}\text{C}$ . Aliquot reconstituted protein and store at  $-80^{\circ}\text{C}$ . Avoid repeated freezing /thawing cycles.

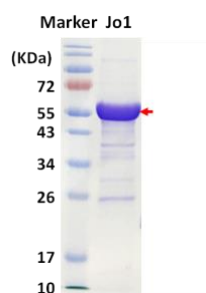
## Quality Control Test

BCA to determine quantity of the protein.

SDS PAGE to determine purity of the protein.

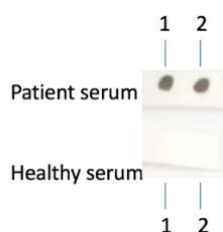
Immunodot analysis to determine functionality of protein.

## 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

## Contact Us

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