

**RPD004Hu01 2mg**

**Recombinant Isoleucyl tRNA Synthetase (IARS)**

**Organism Species: *Homo sapiens* (Human)**

***Instruction manual***

**FOR RESEARCH USE ONLY**

**NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES**

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13th Edition (Revised in Aug, 2023)

## **[ PROPERTIES ]**

**Source:** Prokaryotic expression

**Host:** *E.coli*

**Residues:** Met1~Arg500

**Tags:** N-terminal His Tag

**Subcellular Location:** Cytoplasm

**Purity:** > 80%

**Traits:** Freeze-dried powder

**Buffer formulation:** PBS, pH7.4, containing 0.01% Sarcosyl, 5% Trehalose.

**Original Concentration:** 600µg/mL

**Applications:** Positive Control; Immunogen; SDS-PAGE; WB.

(May be suitable for use in other assays to be determined by the end user.)

**Predicted isoelectric point:** 5.6

**Predicted Molecular Mass:** 61.7KDa

**Accurate Molecular Mass:** 66kDa as determined by SDS-PAGE reducing conditions.

### **Phenomenon explanation:**

The possible reasons that the actual band size differs from the predicted are as follows:

1. Splice variants: Alternative splicing may create different sized proteins from the same gene.
2. Relative charge: The composition of amino acids may affects the charge of the protein.
3. Post-translational modification: Phosphorylation, glycosylation, methylation etc.
4. Post-translation cleavage: Many proteins are synthesized as pro-proteins, and then cleaved to give the active form.
5. Polymerization of the target protein: Dimerization, multimerization etc.

## **[ USAGE ]**

Reconstitute in ddH<sub>2</sub>O to a concentration of 0.1-1.0 mg/mL. Do not vortex.

## **[ STORAGE AND STABILITY ]**

**Storage:** Avoid repeated freeze/thaw cycles.

Store at 2-8°C for one month.

Aliquot and store at -80°C for 12 months.

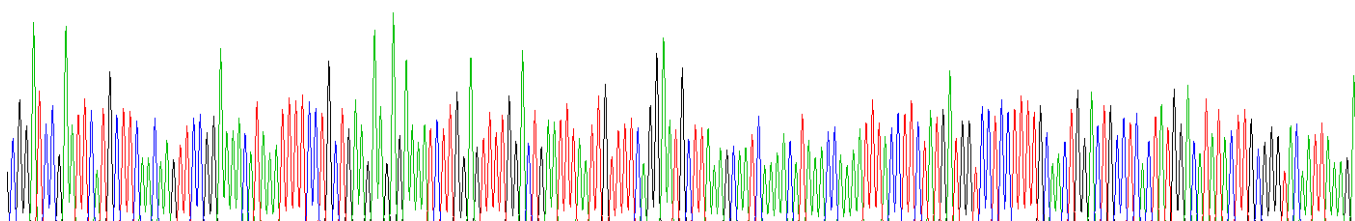
**Stability Test:** The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

### [ SEQUENCE ]

```
MLQQVPENIN FPAEEEEKILE FWTEFNCFQE CLKQSKHKPK FTFYDGPPFA
TGLPHYGHIL AGTIKDIVTR YAHQSGFHVD RRFGWDCHGL PVEYEIDKTL
GIRGPEDVAK MGITEYNNQC RAIVMRYSAE WKSTVSRLGR WIDFDNDYKT
LYPQFMESVW WVFKQLYDKG LVYRGVKVMP FSTACNTPLS NFESHQNYKD
VQDPSVFVTF PLEEDETVSL VAWTTTPWTL PSNLAVCVNP EMQYVKIKDV
ARGRLILME ARLSALYKLE SDYEILERFP GAYLKGGKYR PLFDYFLKCK
ENGAFTVLVD NYVKEEEGTG VVHQAPYFGA EDYRVCMDFN IIRKDSL PVC
PVDASGCFTT EVTDFAGQYV KDAKSIIRT LKEQGRLVA TTFTHSYPFC
WRSDTPLIYK AVPSWFVRVE NMVDQLLRNN DLCYWPELV REKRFGNWLK
DARDWTISRN RYWGTPIPLW VSDDFEEVVC IGSVAELEEL SGAKISDLHR
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### [ IDENTIFICATION ]

ATGATCGAATTCATGCTTCAACAGTTCCGGAACATATAATTTCTGCTGAGGAGGAGAAATCTTGGAGTTTGGACTGAATTTAAATGTTTTCAGGAAATCTTAAAGCAATCAAAACATAAAACAAATTTAAGCTTCTATGATGGTCTCTCTTTGCACTGGACTGCTCTACTATGGACATATACTTGGGGTTCAATTAAGAT



**Figure . Gene Sequencing (extract)**

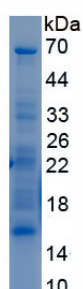


Figure. SDS-PAGE

**[ IMPORTANT NOTE ]**

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.