

**RPD004Hu01 1mg**

**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% SKL, 5% Trehalose .

**Original Concentration:** 550µg/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 10mM PBS (pH7.4) 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.

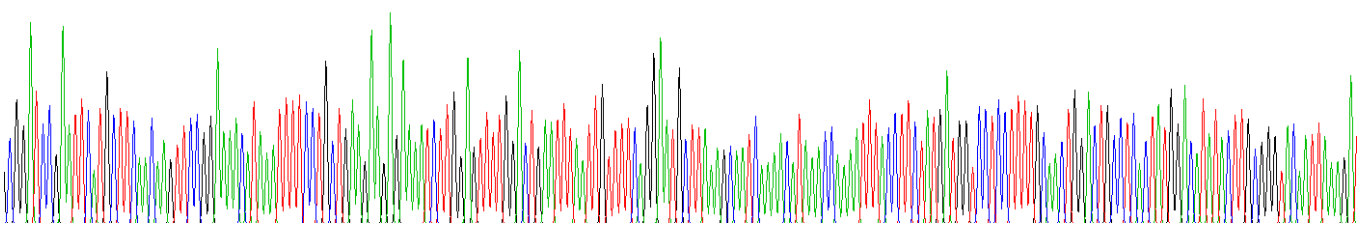
**[ SEQUENCE ]**

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MLQQVPENIN  FPAEEEKILE  FWTEFNCFQE  CLKQSKHKPK  FTFYDGPPFA
TGLPHYGHIL  AGTIKDIVTR  YAHQSGFHVD  RRFGWDCHGL  PVEYEIDKTL
GIRGPEDVAK  MGITEYNNQC  RAIVMRYSAE  WKSTVSRLGR  WIDFDNDYKT
LYPQFMESVW  WVFKQLYDKG  LVYRGVKVMP  FSTACNTPLS  NFESHQNYKD
VQDPSVFVTF  PLEEDETVSL  VAWTTTPWTL  PSNLAVCVNP  EMQYVKIKDV
ARGRLLILME  ARLSALYKLE  SDYEILERFP  GAYLKGKKYR  PLFDYFLKCK
ENGAFTVLVD  NYVKEEEGTG  VVHQAPYFGA  EDYRVCMDFN  IIRKDSL PVC
PVDASGCFTT  EVTDFAGQYV  KDADKSIIRT  LKEQGRL LVA  TTFTHSYPFC
WRSDTPLIYK  AVPSWFVRVE  NMVDQLLRNN  DLCYWPELV  REKRFGNWLK
DARDWTISRN  RYWGTPIPLW  VSDDFEEVVC  IGSVAELEEL  SGAKISDLHR
  
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**[ IDENTIFICATION ]**

ATGATCGAATTCATCTTCACCAAGTTCCGGAACATAAAATTTCTGCTGAGGAGAGAAATCTTGGAGTTTGGCTGAATTTAATTGTTTTCAGGAACTCTTAAAGCAATCAAAACATAAAACAAATTTAAGCTTCTATGATGGTCTCTCTTTTGCACCTGGACTGCTCTGCTATGGAATATACTTGGGGTACAAATTAAGAT



**Figure . Gene Sequencing (extract)**

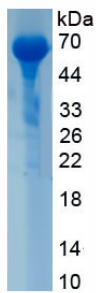


Figure. SDS-PAGE

**[ 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.