# **Human WARS / TrpRS Protein (His Tag)**

Catalog Number: 14827-H07B



# **General Information**

### Gene Name Synonym:

GAMMA-2: IFI53: IFP53

### **Protein Construction:**

A DNA sequence encoding the human WARS (P23381-1) (Pro2-Gln471) was fused with a polyhistide tag at the N-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

**QC** Testing

Purity: > 90 % as determined by SDS-PAGE

**Endotoxin:** 

 $< 1.0 \; EU \; per \; \mu g$  of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70  $^{\circ}$ C

Predicted N terminal: His

## **Molecular Mass:**

The recombinant human WARS consists of 487 amino acids and has a calculated molecular mass of 55.2 kDa. The recombinant protein migrates as an approximately 55 kDa band in SDS-PAGE under reducing conditions.

### Formulation:

Lyophilized from sterile 20mM Tris, 500mM NaCl, 10% glycerol, pH 8.0.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

# **Usage Guide**

#### Storage:

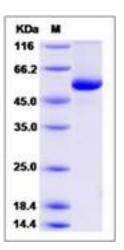
Store it under sterile conditions at  $\text{-}20\,^\circ\!\text{C}$  to  $\text{-}80\,^\circ\!\text{C}$  upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

## Reconstitution:

Detailed reconstitution instructions are sent along with the products.

#### SDS-PAGE:



# **Protein Description**

WARS, also known as TrpRS, is an aminoacyl-tRNA synthetase which belongs to the class-I aminoacyl-tRNA synthetase family. There are two forms of tryptophanyl-tRNA synthetase: a cytoplasmic form, named WARS, and a mitochondrial form, named WARS2. They catalyze the aminoacylation of tRNA by their cognate amino acid. Because of their central role in linking amino acids with nucleotide triplets contained in tRNAs, aminoacyl-tRNA synthetases are thought to be among the first proteins that appeared in evolution. WARS catalyzes the aminoacylation of tRNA(trp) with tryptophan and is induced by interferon.

### References

1.Buwitt U. et al., 1992, EMBO J. 11 (2): 489-96. 2.Fleckner J. et al., 1992, Proc Natl Acad Sci. 88 (24): 11520-4. 3.Ewalt KL. et al., 2002, Biochemistry. 41 (45): 13344-9.

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