

# Human EIF-5A / EIF5 Protein (GST Tag)

Catalog Number: 13932-H09E



**Sino Biological Inc.**

Biological Solution Specialist

## General Information

### Gene Name Synonym:

EIF-5; EIF-5A; 2810011H21Rik; D12Ert549e

### Protein Construction:

A DNA sequence encoding the mature form of human EIF5 (P55010) (Met1-Asp150) was fused with the GST tag at the N-terminus.

**Source:** Human

**Expression Host:** E. coli

## QC Testing

**Purity:** > 95 % as determined by SDS-PAGE

### Endotoxin:

Please contact us for more information.

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

**Predicted N terminal:** Met

### Molecular Mass:

The recombinant human EIF5 /GST chimera consists of 384 amino acids and has a predicted molecular mass of 44.1 kDa. It migrates as an approximately 38-43 kDa band in SDS-PAGE under reducing conditions.

### Formulation:

Lyophilized from sterile PBS, pH 7.4

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:

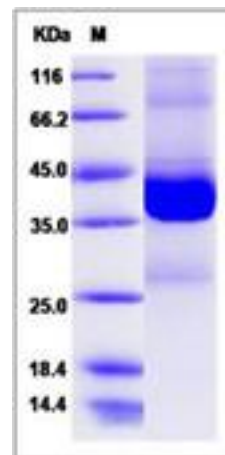
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

EIF-5A, also known as EIF5, functions in start site selection as a GTPase accelerating protein (GAP) for the eukaryotic translation initiation factor (eIF) 2•GTP•tRNA ternary complex within the ribosome-bound pre-initiation complex. In protein synthesis initiation, eIF2 functions in its GTP-bound state to deliver initiator methionyl-tRNA to the small ribosomal subunit and is necessary for protein synthesis in all cells. EIF-5A stabilizes the binding of GDP to eIF2 and is therefore a bi-functional protein that acts as a GDP dissociation inhibitor (GDI). EIF-5A also interacts with eIF1 and eIF3 and binds the eIF2-GTP/Met-tRNA ternary complex along with the 40S ribosome subunit.

## References

- 1.Si K, *et al.* (1996) Characterization of multiple mRNAs that encode mammalian translation initiation factor 5 (eIF-5). J Biol Chem. 71(28):16934.
- 2.Das S, *et al.* (1998) Specific interaction of eukaryotic translation initiation factor 5 (eIF5) with the beta-subunit of eIF2. J Biol Chem. 272(50):31712-8.
- 3.Conte MR, *et al.* (2006) Structure of the eukaryotic initiation factor (eIF) 5 reveals a fold common to several translation factors. Biochemistry. 45(14):4550-8.

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