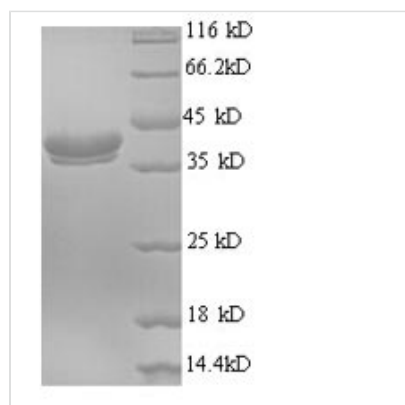




# Recombinant Human Ubiquitin-like FUBI-ribosomal protein eS30 fusion protein (FAU)

<b>Product Code</b>	CSB-EP008447HU
<b>Abbreviation</b>	Recombinant Human FAU protein
<b>Storage</b>	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
<b>Uniprot No.</b>	P62861
<b>Product Type</b>	Recombinant Proteins
<b>Immunogen Species</b>	Homo sapiens (Human)
<b>Purity</b>	Greater than 90% as determined by SDS-PAGE.
<b>Sequence</b>	MQLFVRAQELHTFEVTGQETVAQIKAHVASLEGIAPEDQVVLLAGAPLEDEATL GQCGVEALTTLEVAGRMLGGKVHGLARAGKVRGQTPKVAKQEKKKKKTGR AKRRMQYNRRFVNVVPTFGKKKGPNANS
<b>Research Area</b>	Epigenetics and Nuclear Signaling
<b>Source</b>	E.coli
<b>Target Names</b>	FAU
<b>Expression Region</b>	1-133aa
<b>Notes</b>	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
<b>Tag Info</b>	N-terminal GST-tagged
<b>Mol. Weight</b>	41.4kDa
<b>Protein Length</b>	Full Length

## Image



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

## Description

Recombinant Human Ubiquitin-like FUBI-ribosomal protein eS30 fusion protein



(FAU) is produced in E.coli and expressed as a full-length protein corresponding to amino acids 1-133. This product features an N-terminal GST tag, which helps with purification and detection. The protein shows purity greater than 90% as measured by SDS-PAGE, making it suitable for research applications that need high-quality reagents.

FAU protein, also called Ubiquitin-like FUBI-ribosomal protein eS30, appears to play a critical role in ribosome biogenesis and function. It's a component of the small 40S ribosomal subunit and seems to be involved in protein synthesis within cells. Understanding what FAU does in these basic processes may be essential for research into how cells grow and maintain themselves.

### Potential Applications

Note: The applications listed below are based on what we know about this protein's biological functions, published research, and experience from experts in the field. However, we haven't fully tested all of these applications ourselves yet. We'd recommend running some preliminary tests first to make sure they work for your specific research goals.

#### 1. Ribosome Biogenesis and Assembly Studies

This recombinant FAU protein can help investigate the role of the FUBI-eS30 fusion in ribosome assembly and maturation. The protein works as a substrate for studying the deubiquitination process that separates FUBI from eS30 during ribosome formation. Researchers might use this protein in test tube experiments to characterize how deubiquitinating enzymes (DUBs) process the FUBI-eS30 fusion. The GST tag makes purification easier and allows immobilization for biochemical tests examining how ribosomal proteins get incorporated.

#### 2. Deubiquitinating Enzyme Activity Assays

The recombinant FUBI-eS30 fusion protein works well as a substrate for screening and characterizing deubiquitinating enzymes that specifically cut the FUBI domain from ribosomal protein eS30. With its GST tag, the protein can be easily attached to glutathione-sepharose beads for pull-down experiments and enzyme studies. This application could be particularly valuable for finding new DUBs or studying how specific known enzymes involved in ribosome processing work. Researchers may also use the protein in large-scale screening to discover small molecules that inhibit or activate relevant deubiquitinating activities.

#### 3. Protein-Protein Interaction Studies

The GST-tagged FAU protein can be used in pull-down experiments to identify cellular proteins that interact with either the FUBI domain or the eS30 ribosomal protein part. This approach appears useful for mapping protein interaction networks involved in ribosome formation and ubiquitin-like protein processing pathways. The recombinant protein can act as bait in purification experiments followed by mass spectrometry analysis to find new binding partners. These studies might provide insights into the cellular machinery responsible for processing and incorporating eS30 into mature ribosomes.



#### 4. Antibody Development and Validation

This purified recombinant protein works as an excellent immunogen for generating antibodies specific to the FUBI-eS30 fusion protein or its individual parts. The high purity (>90%) means minimal contamination that could create cross-reactive antibodies. Researchers can use this protein as a positive control in Western blotting, ELISA, and immunoprecipitation experiments when testing newly developed antibodies. The GST tag also allows for developing tag-specific detection methods and provides an internal control for protein expression and purification efficiency.

#### 5. Structural and Biophysical Characterization

The recombinant FAU protein can be used in structural biology studies to understand the three-dimensional organization of the FUBI-eS30 fusion and how the ubiquitin-like domain affects ribosomal protein structure. Biophysical techniques such as circular dichroism spectroscopy, dynamic light scattering, and analytical ultracentrifugation can characterize protein folding, stability, and oligomerization states. The protein may serve as a valuable tool for NMR or X-ray crystallography studies aimed at determining high-resolution structural information about this unique ribosomal protein fusion.

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#### **Shelf Life**

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