# Recombinant TRUB2 protein (His tag)

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| **Catalog Number** | 541944 |
| **Synonyms** | TruB pseudouridine synthase homolog 2; tRNA pseudouridine 55 synthase TRUB2; Psi55 synthase TRUB2 |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | O95900 |
| **Molecular Weight** | Predictes a molecular mass of 33.85 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 34 kDa band. |

## Product Information

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| **Sequence Region** | 11-297 |
| **Form** | Lyophilized powder |
| **Formulation** | Lyophilized from sterile PBS, pH 7.4 |
| **Purity** | >86%, by SDS-PAGE with Coomassie Brilliant Blue staining. |
| **Endotoxin** | Not tested. |
| **Activity** | Not tested. |
| **Stability** | Samples are stable for up to twelve months from date of receipt at -70℃ |
| **Protein Construction** | DNA encoding 11-297 aa (O95900) were fused with 6His tag. |

## Storage & Handling

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| **Reconstitution** | Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. |
| **Storage** | Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. |
| **Shipping** | In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature.<br>Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise. |

## Description

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| **Description** | This recombinant protein is a stable and soluble fragment (residues 11-297) of the human mitochondrial Pseudouridylate synthase TRUB2, designed for structural and biochemical studies. It represents a key enzyme involved in pseudouridylation of mitochondrial RNAs, offering researchers a reliable tool for investigating RNA modification mechanisms and mitochondrial gene expression.<br>The full-length TRUB2 protein is a mitochondrial pseudouridylate synthase that catalyzes the isomerization of uridine to pseudouridine in specific mitochondrial mRNAs (such as COXI and COXIII) and tRNAs. It functions as part of a protein-RNA complex with RCC1L, NGRN, RPUSD3, RPUSD4, FASTKD2, and 16S mitochondrial ribosomal RNA to regulate 16S mt-rRNA abundance and support intra-mitochondrial translation. TRUB2 localizes to the mitochondrial matrix and RNA granules, where it contributes to post-transcriptional RNA processing and ribosome assembly, playing a critical role in mitochondrial function and energy production. |