# Recombinant RSSA protein (His tag)

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| **Catalog Number** | 534320 |
| **Synonyms** | 40S ribosomal protein SA |
| **Species** | Caenorhabditis elegans |
| **Expression System** | E. coli |
| **Accession** | P46769 |
| **Gene ID** | 175628 |
| **Molecular Weight** | Predictes a molecular mass of 26.20 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 26 kDa band. |

## Product Information

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| **Sequence Region** | 2-222 |
| **Form** | Lyophilized powder |
| **Formulation** | Lyophilized from sterile PBS, pH 7.4 |
| **Purity** | >89%, 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 2-222 aa (P46769) 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** | Recombinant Small ribosomal subunit protein uS2 (40S ribosomal protein SA) fragment from Caenorhabditis elegans, representing residues 2-222. This 221-amino acid fragment has been computationally optimized for stability and solubility, making it an ideal tool for studying 40S ribosomal subunit assembly and rRNA processing mechanisms.<br>The full-length Small ribosomal subunit protein uS2 (encoded by rps-0 gene) is essential for the assembly and stability of the 40S ribosomal subunit. It plays a critical role in the final maturation step of 40S ribosomal subunits by facilitating the processing of 20S rRNA precursor to mature 18S rRNA. Recent research also indicates its involvement in cold-warm shock-induced translocation of RNA exosome components from the nucleolus to nucleoplasm, suggesting additional regulatory functions beyond ribosomal biogenesis. This cytoplasmic protein represents a key component in fundamental cellular processes of protein synthesis and RNA metabolism. |