Recombinant SPCS protein (His tag)

Catalog Number	534367
Synonyms	Sec; Selenocysteine synthase; Sec synthase; Selenocysteinyl-tRNA(Sec) synthase; Sep-tRNA:Sec-tRNA synthase; SepSecS; UGA suppressor tRNA-associated protein homolog
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	Q18953
Gene ID	179498
Molecular Weight	Predictes a molecular mass of 55.07 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 55 kDa band.

Product Information

Sequence Region	1-481
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 1-481 aa (Q18953) were fused with 6His tag.

Storage & Handling

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. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant O-phosphoseryl-tRNA(Sec) selenium transferase (SepSecS) from Caenorhabditis elegans, encompassing amino acids 1-481. This fragment is engineered for stability and solubility, ideal for investigating selenocysteine biosynthesis and selenoprotein formation in biochemical and structural studies. O-phosphoseryl-tRNA(Sec) selenium transferase (EC 2.9.1.2), also known as selenocysteine synthase or SepSecS, catalyzes the conversion of O-phosphoseryl-tRNA(Sec) to selenocysteinyl-tRNA(Sec), a critical step in selenoprotein biosynthesis. This enzyme is localized in the cytoplasm, where it facilitates the incorporation of selenocysteine into proteins, playing a vital role in redox regulation and cellular defense mechanisms. The full-length protein is essential for synthesizing functional selenoproteins, which are involved in antioxidant activities and metabolic processes.