Recombinant SRP14 protein (His tag)

Catalog Number	539930
Synonyms	SRP14; 18 kDa Alu RNA-binding protein
Species	Human
Expression System	E. coli
Accession	P37108
Molecular Weight	Predictes a molecular mass of 12.78 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 13 kDa band.

Product Information

Sequence Region	2-99
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 2-99 aa (P37108) 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 Human SRP14 Protein Fragment (residues 2-99) is a high-quality, soluble, and stable protein product designed for structural and biochemical studies. This fragment of the Signal Recognition Particle 14 kDa protein (SRP14) retains key features ideal for investigating its role in the cotranslational targeting of secretory and membrane proteins, offering researchers a reliable tool for advancing understanding of protein translocation mechanisms. The full-length Signal Recognition Particle 14 kDa protein (SRP14) is a critical component of the signal recognition particle (SRP) complex in humans, which mediates the cotranslational targeting of secretory and membrane proteins to the endoplasmic reticulum (ER). As part of the elongation arrest domain, SRP14, together with SRP9 and the Alu portion of SRP RNA, is essential for SRP RNA binding and facilitates the temporary halting of protein synthesis during translocation. This protein is localized in the cytoplasm, where it contributes to the efficient delivery of nascent polypeptides to the ER membrane, ensuring proper cellular function and protein sorting. The provided fragment (residues 2-99) was selected based on computational predictions to represent a stable and soluble unit, enabling detailed analysis of SRP14's biochemical properties without the full-length complexity.