Recombinant EFL1 protein (His tag)

Catalog Number	545295
Synonyms	Elongation factor Tu GTP-binding domain-containing protein 1; Elongation factor-like 1; Protein FAM42A
Species	Human
Expression System	E. coli
Accession	Q7Z2Z2
Molecular Weight	Predictes a molecular mass of 28.06 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 28 kDa band.

Product Information

Sequence Region	222-455
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 222-455 aa (Q7Z2Z2) 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 Elongation factor-like GTPase 1 (EFL1) Fragment (aa 222-455) is a high-purity protein designed for structural and biochemical studies. This 234-amino acid fragment represents a stable, soluble unit of EFL1, a key GTPase involved in ribosomal biogenesis and translational activation, making it ideal for investigating GTPase mechanisms and ribosome maturation pathways. Elongation factor-like GTPase 1 (EFL1), encoded by the EFL1 gene in Homo sapiens, is a GTPase critical for the biogenesis of the 60S ribosomal subunit and the translational activation of ribosomes. It functions in conjunction with SBDS to mediate the GTP-dependent release of EIF6 from cytoplasmic 60S pre-ribosomes. This process activates ribosomes for translation by enabling 80S ribosome assembly and facilitates the recycling of EIF6 to the nucleus, where it supports 60S rRNA processing and nuclear export. EFL1's role in ribosome maturation underscores its importance in cellular protein synthesis and potential implications in related diseases.