Recombinant IF4A2 protein (His tag)

Catalog Number	544969
Synonyms	eIF-4A-II; eIF4A-II; ATP-dependent RNA helicase eIF4A-2
Species	Human
Expression System	E. coli
Accession	Q14240
Molecular Weight	Predictes a molecular mass of 48.06 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 51 kDa band.

Product Information

Sequence Region	1-407
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 1-407 aa (Q14240) 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	This recombinant protein product features a fragment of the Eukaryotic initiation factor 4A-II (eIF4A-II), encompassing amino acids 1-407, which includes the complete Helicase ATP-binding and Helicase C-terminal domains. It serves as an essential tool for investigating the ATP-dependent RNA helicase activity and mRNA translation initiation mechanisms in human cellular systems. Eukaryotic initiation factor 4A-II (eIF4A-II), encoded by the EIF4A2 gene in Homo sapiens, is an ATP-dependent RNA helicase and a key subunit of the eIF4F complex. It plays a critical role in cap-dependent translation initiation by unwinding secondary structures in the 5'-untranslated regions (5'-UTRs) of mRNAs. This unwinding activity facilitates the binding of the small ribosomal subunit and enables efficient scanning for the start codon, thereby regulating protein synthesis. The full-length protein is vital for mRNA-ribosome interactions, though its specific subcellular localization details are not provided here.