Recombinant DDX56 protein (His tag)

Catalog Number	543762
Synonyms	ATP-dependent 61 kDa nucleolar RNA helicase; DEAD box protein 21; DEAD box protein 56
Species	Human
Expression System	E. coli
Accession	Q9NY93
Molecular Weight	Predictes a molecular mass of 37.16 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 38 kDa band.

Product Information

Sequence Region	1-317
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 1-317 aa (Q9NY93) 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 DDX56 (Probable ATP-dependent RNA helicase) Fragment (1-317) is a high-purity protein encompassing the essential Helicase ATP-binding domain (residues 38-218). This fragment serves as an ideal tool for investigating ATP-dependent RNA helicase activity, ribosome biogenesis, nucleolar integrity, and innate immune regulation in vitro. DDX56 is a nucleolar RNA helicase with ATPase activity that plays multifaceted roles in ribosome biogenesis, nucleolar organization, and stem cell maintenance. It regulates antiviral innate immunity by inhibiting IRF3 nuclear translocation through disruption of importin interactions. The protein also exhibits virus-specific modulatory functions, supporting replication of certain viruses while restricting others. Located predominantly in the nucleolus, DDX56 contributes to processing pre-ribosomal particles and maintaining nucleolar integrity, making it crucial for cellular homeostasis and immune response pathways.