Recombinant DDX18 protein (His tag)

Catalog Number	543749
Synonyms	DEAD box protein 18; Myc-regulated DEAD box protein; MrDb
Species	Human
Expression System	E. coli
Accession	Q9NVP1
Molecular Weight	Predictes a molecular mass of 52.45 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 52 kDa band.

Product Information

Sequence Region	176-623
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 176-623 aa (Q9NVP1) 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 ATP-dependent RNA helicase DDX18 (EC 3.6.4.13) fragment (residues 176-623) is a high-purity protein designed for studying RNA helicase activity and R-loop regulation. This 448-amino acid fragment includes the essential Helicase ATP-binding and Helicase C-terminal domains, making it an ideal tool for investigating DDX18's role in transcription, DNA damage response, and pluripotency maintenance. DDX18 is an ATP-dependent RNA helicase crucial for maintaining R-loop homeostasis at transcriptionally active regions and DNA damage sites, preventing replication interference and facilitating DNA lesion repair. It also supports embryonic pluripotency by protecting nucleolar chromatin from polycomb-mediated repression. The full-length protein localizes to the nucleus, nucleolus, and chromosomes, underscoring its involvement in genomic stability and stem cell regulation. This recombinant fragment enables focused analysis of its core helicase functions in these pathways.