Datasheet for ABIN7562506

DHX9 Protein (AA 1-1380) (His tag)

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Overview

Quantity:	1 mg
Target:	DHX9
Protein Characteristics:	AA 1-1380
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This DHX9 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant Dhx9 Protein expressed in mammalian cells.
Sequence:	MGDIKNFLYA WCGKRKMTPA YEIRAVGNKN RQKFMCEVRV EGFNYAGMGN STNKKDAQSN AARDFVNYLV RINEVKSEEV PAVGIVPPPP ILSDTSDSTA SAAEGLPAPM GGPLPPHLAL KAEENNSGVE SSGYGSPGPT WDRGANLKDY YSRKEEQEVQ ATLESEEVDL NAGLHGNWTL ENAKARLNQY FQKEKIQGEY KYTQVGPDHN RSFIAEMTIY IKQLGRRIFA REHGSNKKLA AQSCALSLVR QLYHLGVIEA YSGLTKKKEG ERVEPYKVFL SPDLELQLQN VVQELDLEIV PPPVDPSMPV ILNIGKLAHF EPSQRQNAVG VVPWSPPQSN WNPWTSSNID EGPLAYASTE QISMDLKNEL TYQMEQDHNL QSVLQERELL PVKKFEAEIL EAISSNSVVI IRGATGCGKT TQVPQYILDD FIQNDRAAEC NIVVTQPRRI SAVAVAERVA YERGEEPGKS CGYSVRFESI LPRPHASIMF CTVGVLLRKL EAGIRGISHV IVDEIHERDI NTDFLLVVLR DVVLAYPEVR IVLMSATIDT TMFCEYFFNC PIIEVYGRTF PVQEYFLEDC IQMTQFIPPP KDKKKKDKED DGGEDDDANC NLICGDEYGP ETKLSMSQLN EKETPFELIE ALLKYIETLN VPGAVLVFLP GWNLIYTMQK HLENNSHFGS HRYQILPLHS QIPREEQRKV FDPVPDGVTK VILSTNIAET

	SITINDVVYV IDSCKQKVKL FTAHNNMTNY ATVWASKTNL EQRKGRAGRV RPGFCFHLCS RARFDRLETH MTPEMFRTPL HEIALSIKLL RLGGIGQFLA KAIEPPPLDA IIEAEHTLRE LDALDANDEL TPLGRILAKL PIEPRFGKMM IMGCIFYVGD AVCTISAATC FPEPFISEGK RLGYIHRNFA GNRFSDHVAL LSVFQAWDDA RMSGEEAEIR FCEQKRLNMA TLRMTWEAKV QLKEILINSG FPEDCLLTQV FTNTGPDNNL DVVISLLAFG VYPNVCYHKE KRKILTTEGR NALIHKSSVN CPFSSQDMKY PSPFFVFGEK IRTRAISAKG MTLVTPLQLL LFASKKVQSD GQIVFIDDWI RLQISHEAAA CITIRAAMEA LVVEVSKQPN IISQLDPVNE HMLNTIRQIS RPSAAGINLM IGSVRYGDGP RPPKMARYDN GSGYRRGYGG GGYGGGGYGG GYGSGGFGGG FGSGGGFGGG FNSGGGGFGS GGGGFGSGGG GFGGGGGGFS GGGGGGFGGG RGGGGGGFGG SGGFGNGGGG YGVGGGGYGG GGGGGYGGGS GGYGGGGYGG GEGYSISPNS YRGNYGGGGG GYRGGSQGGY RNNFGGDYRG SSGDYRGSGG GYRGSGGFQR RGYGGGYFGQ GRGGGGGGGY **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.**
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.
Characteristics:	Key Benefits: • Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalian cells and purified in one-step affinity chromatography • The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins. • State-of-the-art algorithm used for plasmid design (Gene synthesis). This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein. If you are not interested in a full length protein, please contact us for individual protein fragments. The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.
Purity:	> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made

Target Details

Target:	DHX9
Alternative Name:	Dhx9 (DHX9 Products)
Background:	ATP-dependent RNA helicase A (EC 3.6.4.13) (DEAH box protein 9) (mHEL-5) (Nuclear DNA helicase II) (NDH II) (RNA helicase A) (RHA),FUNCTION: Multifunctional ATP-dependent nucleic acid helicase that unwinds DNA and RNA in a 3' to 5' direction and that plays important roles in many processes, such as DNA replication, transcriptional activation, post-transcriptional RNA regulation, mRNA translation and RNA-mediated gene silencing. Requires a 3'-single-stranded tail as entry site for acid nuclei unwinding activities as well as the binding and hydrolyzing of any of the four ribo- or deoxyribo-nucleotide triphosphates (NTPs). Unwinds numerous nucleic acid substrates such as double-stranded (ds) DNA and RNA, DNA:RNA hybrids, DNA and RNA forks composed of either partially complementary DNA duplexes or DNA:RNA hybrids, respectively, and also DNA and RNA displacement loops (D- and R-loops), triplex-helical DNA (H-DNA) structure and DNA- and RNA-based G-quadruplexes. Binds dsDNA, single-stranded DNA (ssDNA), dsRNA, ssRNA and poly(A)-containing RNA. Binds also to circular dsDNA or dsRNA of either linear and/or circular forms and stimulates the relaxation of supercoiled DNAs catalyzed by topoisomerase TOP2A. Plays a role in DNA replication at origins of replication and cell cycle progression. Plays a role as a transcriptional coactivator acting as a bridging factor between polymerase II holoenzyme and transcription factors or cofactors, such as BRCA1, CREBBP, RELA and SMN1. Binds to the CDKN2A promoter. Plays several roles in post-transcriptional regulation of gene expression. In cooperation with NUP98, promotes pre-mRNA alternative splicing activities of a subset of genes (By similarity). As component of a large PER complex, is involved in the negative regulation of 3' transcriptional termination of circadian target genes such as PER1 and NR1D1 and the control of the circadian rhythms (PubMed:22767893). Acts also as a nuclear resolvase that is able to bind and neutralize harmful massive secondary double-stranded RNA structures formed by inverted-repeat Alu retrotransposon elements that are inserted and transcribed as parts of genes during the process of gene transposition (PubMed:28355180). Involved in the positive regulation of nuclear export of constitutive transport element (CTE)-containing unspliced mRNA. Component of the coding region determinant (CRD)-mediated complex that promotes cytoplasmic MYC mRNA stability. Plays a role in mRNA translation. Positively regulates translation of selected mRNAs through its binding to post-transcriptional control element (PCE) in the 5'-untranslated region (UTR). Involved with LARP6 in the translation stimulation of type I collagen mRNAs for CO1A1 and CO1A2 through binding of a specific stem-loop structure in their 5'-UTRs. Stimulates LIN28A-dependent mRNA translation probably by facilitating ribonucleoprotein remodeling during the process of translation. Also plays a role as a small interfering (siRNA)-

Target Details

	loading factor involved in the RNA-induced silencing complex (RISC) loading complex (RLC) assembly, and hence functions in the RISC-mediated gene silencing process. Binds preferentially to short double-stranded RNA, such as those produced during rotavirus intestinal infection (PubMed:28636595). This interaction may mediate NLRP9 inflammasome activation and trigger inflammatory response, including IL18 release and pyroptosis (PubMed:28636595). Finally, mediates the attachment of heterogeneous nuclear ribonucleoproteins (hnRNPs) to actin filaments in the nucleus (By similarity). {ECO:0000250|UniProtKB:Q08211, ECO:0000269|PubMed:22767893, ECO:0000269|PubMed:28355180, ECO:0000269|PubMed:28636595}.
Molecular Weight:	149.5 kDa
UniProt:	O70133

Application Details

Application Notes:	We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months