Datasheet for ABIN7553706

DHX36 Protein (AA 1-1008) (His tag)

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Overview

Quantity:	1 mg
Target:	DHX36
Protein Characteristics:	AA 1-1008
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This DHX36 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant DHX36 Protein expressed in mammalian cells.
Sequence:	MSYDYHQNWG RDGGPRSSGG GYGGGPAGGH GGNRGSGGGG GGGGGGRGGR GRHPGHLKGR EIGMWYAKKQ GQKNKEAERQ ERAVVHMDER REEQIVQLLN SVQAKNDKES EAQISWFAPE DHGYGTEVST KNTPCSENKL DIQEKKLINQ EKKMFRIRNR SYIDRDSEYL LQENEPDGTL DQKLLEDLQK KKNDLRYIEM QHFREKLPSY GMQKELVNLI DNHQVTVISG ETGCGKTTQV TQFILDNYIE RGKGSACRIV CTQPRRISAI SVAERVAAER AESCGSGNST GYQIRLQSRL PRKQGSILYC TTGIILQWLQ SDPYLSSVSH IVLDEIHERN LQSDVLMTVV KDLLNFRSDL KVILMSATLN AEKFSEYFGN CPMIHIPGFT FPVVEYLLED VIEKIRYVPE QKEHRSQFKR GFMQGHVNRQ EKEEKEAIYK ERWPDYVREL RRRYSASTVD VIEMMEDDKV DLNLIVALIR YIVLEEEDGA ILVFLPGWDN ISTLHDLLMS QVMFKSDKFL IIPLHSLMPT VNQTQVFKRT PPGVRKIVIA TNIAETSITI DDVVYVIDGG KIKETHFDTQ NNISTMSAEW VSKANAKQRK GRAGRVQPGH CYHLYNGLRA SLLDDYQLPE ILRTPLEELC LQIKILRLGG IAYFLSRLMD PPSNEAVLLS IRHLMELNAL DKQEELTPLG VHLARLPVEP HIGKMILFGA LFCCLDPVLT

Product Details

	IAASLSFKDP FVIPLGKEKI ADARRKELAK DTRSDHLTVV NAFEGWEEAR RRGFRYEKDY CWEYFLSSNT LQMLHNMKGQ FAEHLLGAGF VSSRNPKDPE SNINSDNEKI IKAVICAGLY PKVAKIRLNL GKKRKMVKVY TKTDGLVAVH PKSVNVEQTD FHYNWLIYHL KMRTSSIYLY DCTEVSPYCL LFFGGDISIQ KDNDQETIAV DEWIVFQSPA RIAHLVKELR KELDILLQEK IESPHPVDWN DTKSRDCAVL SAIIDLIKTQ EKATPRNFPP RFQDGYYS **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:	DHX36
Alternative Name:	DHX36 (DHX36 Products)
Background:	ATP-dependent DNA/RNA helicase DHX36 (EC 3.6.4.12) (EC 3.6.4.13) (DEAD/H box polypeptide 36) (DEAH-box protein 36) (G4-resolvase-1) (G4R1) (MLE-like protein 1) (RNA helicase associated with AU-rich element protein),FUNCTION: Multifunctional ATP-dependent helicase

that unwinds G-quadruplex (G4) structures (PubMed:16150737, PubMed:18854321, PubMed:20472641, PubMed:21586581). Plays a role in many biological processes such as genomic integrity, gene expression regulations and as a sensor to initiate antiviral responses (PubMed:14731398, PubMed:18279852, PubMed:21993297, PubMed:22238380, PubMed:25579584). G4 structures correspond to helical structures containing guanine tetrads (By similarity). Binds with high affinity to and unwinds G4 structures that are formed in nucleic acids (G4-ADN and G4-RNA) (PubMed:16150737, PubMed:18842585, PubMed:20472641, PubMed:21586581, PubMed:24369427, PubMed:26195789). Plays a role in genomic integrity (PubMed:22238380). Converts the G4-RNA structure present in telomerase RNA template component (TREC) into a double-stranded RNA to promote P1 helix formation that acts as a template boundary ensuring accurate reverse transcription (PubMed:20472641, PubMed:21149580, PubMed:21846770, PubMed:22238380, PubMed:24151078, PubMed:25579584). Plays a role in transcriptional regulation (PubMed:21586581, PubMed:21993297). Resolves G4-DNA structures in promoters of genes, such as YY1, KIT/c-kit and ALPL and positively regulates their expression (PubMed:21993297). Plays a role in post-transcriptional regulation (PubMed:27940037). Unwinds a G4-RNA structure located in the 3'-UTR polyadenylation site of the pre-mRNA TP53 and stimulates TP53 pre-mRNA 3'-end processing in response to ultraviolet (UV)-induced DNA damage (PubMed:27940037). Binds to the precursor-microRNA-134 (pre-miR-134) terminal loop and regulates its transport into the synapto-dendritic compartment (By similarity). Involved in the pre-miR-134-dependent inhibition of target gene expression and the control of dendritic spine size (By similarity). Plays a role in the regulation of cytoplasmic mRNA translation and mRNA stability (PubMed:24369427, PubMed:26489465). Binds to both G4-RNA structures and alternative non-quadruplex-forming sequence within the 3'-UTR of the PITX1 mRNA regulating negatively PITX1 protein expression (PubMed:24369427). Binds to both G4-RNA structure in the 5'-UTR and AU-rich elements (AREs) localized in the 3'-UTR of NKX2-5 mRNA to either stimulate protein translation or induce mRNA decay in an ELAVL1-dependent manner, respectively (PubMed:26489465). Binds also to ARE sequences present in several mRNAs mediating exosome-mediated 3'-5' mRNA degradation (PubMed:14731398, PubMed:18279852). Involved in cytoplasmic urokinase-type plasminogen activator (uPA) mRNA decay (PubMed:14731398). Component of a multi-helicase-TICAM1 complex that acts as a cytoplasmic sensor of viral double-stranded RNA (dsRNA) and plays a role in the activation of a cascade of antiviral responses including the induction of pro-inflammatory cytokines via the adapter molecule TICAM1 (By similarity). Required for early embryonic development and hematopoiesis. Involved in the regulation of cardioblast differentiation and proliferation during heart development. Involved in spermatogonia differentiation. May play a role in ossification (By similarity).

Target Details

	{ECO:0000250|UniProtKB:D4A2Z8, ECO:0000250|UniProtKB:Q05B79, ECO:0000250|UniProtKB:Q8VHK9, ECO:0000269|PubMed:14731398, ECO:0000269|PubMed:16150737, ECO:0000269|PubMed:18279852, ECO:0000269|PubMed:18842585, ECO:0000269|PubMed:18854321, ECO:0000269|PubMed:20472641, ECO:0000269|PubMed:21149580, ECO:0000269|PubMed:21586581, ECO:0000269|PubMed:21846770, ECO:0000269|PubMed:21993297, ECO:0000269|PubMed:22238380, ECO:0000269|PubMed:24151078, ECO:0000269|PubMed:24369427, ECO:0000269|PubMed:25579584, ECO:0000269|PubMed:26195789, ECO:0000269|PubMed:26489465, ECO:0000269|PubMed:27940037}.
Molecular Weight:	114.8 kDa
UniProt:	Q9H2U1
Pathways:	Toll-Like Receptors Cascades

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

