Datasheet for ABIN7553650

DDX21 Protein (AA 1-783) (His tag)

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Overview

Quantity:	1 mg
Target:	DDX21
Protein Characteristics:	AA 1-783
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This DDX21 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat DDX21 Protein expressed in mammalien cells.
Sequence:	MPGKLRSDAG LESDTAMKKG ETLRKQTEEK EKKEKPKSDK TEEIAEEEET VFPKAKQVKK KAEPSEVDMN SPKSKKAKKK EEPSQNDISP KTKSLRKKKE PIEKKVVSSK TKKVTKNEEP SEEEIDAPKP KKMKKEKEMN GETREKSPKL KNGFPHPEPD CNPSEAASEE SNSEIEQEIP VEQKEGAFSN FPISEETIKL LKGRGVTFLF PIQAKTFHHV YSGKDLIAQA RTGTGKTFSF AIPLIEKLHG ELQDRKRGRA PQVLVLAPTR ELANQVSKDF SDITKKLSVA CFYGGTPYGG QFERMRNGID ILVGTPGRIK DHIQNGKLDL TKLKHVVLDE VDQMLDMGFA DQVEEILSVA YKKDSEDNPQ TLLFSATCPH WVFNVAKKYM KSTYEQVDLI GKKTQKTAIT VEHLAIKCHW TQRAAVIGDV IRVYSGHQGR TIIFCETKKE AQELSQNSAI KQDAQSLHGD IPQKQREITL KGFRNGSFGV LVATNVAARG LDIPEVDLVI QSSPPKDVES YIHRSGRTGR AGRTGVCICF YQHKEEYQLV QVEQKAGIKF KRIGVPSATE IIKASSKDAI RLLDSVPPTA ISHFKQSAEK LIEEKGAVEA LAAALAHISG ATSVDQRSLI NSNVGFVTMI LQCSIEMPNI SYAWKELKEQ

Product Details

	LGEEIDSKVK GMVFLKGKLG VCFDVPTASV TEIQEKWHDS RRWQLSVATE QPELEGPREG YGGFRGQREG SRGFRGQRDG NRRFRGQREG SRGPRGQRSG GGNKSNRSQN KGQKRSFSKA FGQ **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.**
Characteristics:	Key Benefits: • Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalien 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, Western Blot
Grade:	custom-made

Target Details

Target:	DDX21
Alternative Name:	DDX21 (DDX21 Products)
Background:	Nucleolar RNA helicase 2 (EC 3.6.4.13) (DEAD box protein 21) (Gu-alpha) (Nucleolar RNA helicase Gu) (Nucleolar RNA helicase II) (RH II/Gu),FUNCTION: RNA helicase that acts as a sensor of the transcriptional status of both RNA polymerase (Pol) I and II: promotes ribosomal RNA (rRNA) processing and transcription from polymerase II (Pol II) (PubMed:25470060, PubMed:28790157). Binds various RNAs, such as rRNAs, snoRNAs, 7SK and, at lower extent, mRNAs (PubMed:25470060). In the nucleolus, localizes to rDNA locus, where it directly binds rRNAs and snoRNAs, and promotes rRNA transcription, processing and modification. Required for rRNA 2'-O-methylation, possibly by promoting the recruitment of late-acting snoRNAs

Target Details

	SNORD56 and SNORD58 with pre-ribosomal complexes (PubMed:25470060, PubMed:25477391). In the nucleoplasm, binds 7SK RNA and is recruited to the promoters of Pol II-transcribed genes: acts by facilitating the release of P-TEFb from inhibitory 7SK snRNP in a manner that is dependent on its helicase activity, thereby promoting transcription of its target genes (PubMed:25470060). Functions as a cofactor for JUN-activated transcription: required for phosphorylation of JUN at 'Ser-77' (PubMed:11823437, PubMed:25260534). Can unwind double-stranded RNA (helicase) and can fold or introduce a secondary structure to a single-stranded RNA (foldase) (PubMed:9461305). Together with SIRT7, required to prevent R-loop-associated DNA damage and transcription-associated genomic instability: deacetylation by SIRT7 activates the helicase activity, thereby overcoming R-loop-mediated stalling of RNA polymerases (PubMed:28790157). Involved in rRNA processing (PubMed:14559904, PubMed:18180292). May bind to specific miRNA hairpins (PubMed:28431233). 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). {ECO:0000250|UniProtKB:Q9JIK5, ECO:0000269|PubMed:11823437, ECO:0000269|PubMed:14559904, ECO:0000269|PubMed:18180292, ECO:0000269|PubMed:25260534, ECO:0000269|PubMed:25470060, ECO:0000269|PubMed:25477391, ECO:0000269|PubMed:28431233, ECO:0000269|PubMed:28790157, ECO:0000269|PubMed:9461305}.
Molecular Weight:	87.3 kDa
UniProt:	Q9NR30
Pathways:	SARS-CoV-2 Protein Interactome

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. 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

Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months