Datasheet for ABIN7553638

DDX11 Protein (AA 1-970) (His tag)

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Overview

Quantity:	1 mg
Target:	DDX11
Protein Characteristics:	AA 1-970
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This DDX11 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant DDX11 Protein expressed in mammalian cells.
Sequence:	MANETQKVGA IHFPFPFTPY SIQEDFMAEL YRVLEAGKIG IFESPTGTGK SLSLICGALS WLRDFEQKKR EEEARLLETG TGPLHDEKDE SLCLSSSCEG AAGTPRPAGE PAWVTQFVQK KEERDLVDRL KAEQARRKQR EERLQQLQHR VQLKYAAKRL RQEEEERENL LRLSREMLET GPEAERLEQL ESGEEELVLA EYESDEEKKV ASRVDEDEDD LEEEHITKIY YCSRTHSQLA QFVHEVKKSP FGKDVRLVSL GSRQNLCVNE DVKSLGSVQL INDRCVDMQR SRHEKKKGAE EEKPKRRRQE KQAACPFYNH EQMGLLRDEA LAEVKDMEQL LALGKEARAC PYYGSRLAIP AAQLVVLPYQ MLLHAATRQA AGIRLQDQVV IIDEAHNLID TITGMHSVEV SGSQLCQAHS QLLQYVERYG KRLKAKNLMY LKQILYLLEK FVAVLGGNIK QNPNTQSLSQ TGTELKTIND FLFQSQIDNI NLFKVQRYCE KSMISRKLFG FTERYGAVFS SREQPKLAGF QQFLQSLQPR TTEALAAPAD ESQASTLRPA SPLMHIQGFL AALTTANQDG RVILSRQGSL SQSTLKFLLL NPAVHFAQVV KECRAVVIAG GTMQPVSDFR QQLLACAGVE AERVVEFSCG HVIPPDNILP LVICSGISNQ PLEFTFQKRE LPQMMDEVGR ILCNLCGVVP GGVVCFFPSY EYLRQVHAHW

Product Details

	EKGGLLGRLA ARKKIFQEPK SAHQVEQVLL AYSRCIQACG QERGQVTGAL LLSVVGGKMS EGINFSDNLG RCVVMVGMPF PNIRSAELQE KMAYLDQTLS PRPGTPREGS GGEPVHEGRQ PVHRQGHQAP EGFCQRSAPG PAICPAPCPG QAAGLDPSPC GGQSYLWPRH CCCAEVSPGE VGLFLMGNHT TAWRRALPLS CPLETVFVVG VVCGDPVTKV KPRRRVWSPE CCQDPGTGVS SRRRKWGNPE **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:	DDX11
Alternative Name:	DDX11 (DDX11 Products)
Background:	ATP-dependent DNA helicase DDX11 (EC 3.6.4.12) (CHL1-related protein 1) (hCHLR1) (DEAD/H-box protein 11) (Keratinocyte growth factor-regulated gene 2 protein) (KRG-2),FUNCTION: DNA-dependent ATPase and ATP-dependent DNA helicase that participates in various functions in genomic stability, including DNA replication, DNA repair and heterochromatin organization as

well as in ribosomal RNA synthesis (PubMed:10648783, PubMed:21854770, PubMed:23797032, PubMed:26089203, PubMed:26503245). Its double-stranded DNA helicase activity requires either a minimal 5'-single-stranded tail length of approximately 15 nt (flap substrates) or 10 nt length single-stranded gapped DNA substrates of a partial duplex DNA structure for helicase loading and translocation along DNA in a 5' to 3' direction (PubMed:18499658, PubMed:22102414). The helicase activity is capable of displacing duplex regions up to 100 bp, which can be extended up to 500 bp by the replication protein A (RPA) or the cohesion CTF18-replication factor C (Ctf18-RFC) complex activities (PubMed:18499658). Shows also ATPase- and helicase activities on substrates that mimic key DNA intermediates of replication, repair and homologous recombination reactions, including forked duplex, anti-parallel G-quadruplex and three-stranded D-loop DNA molecules (PubMed:22102414, PubMed:26503245). Plays a role in DNA double-strand break (DSB) repair at the DNA replication fork during DNA replication recovery from DNA damage (PubMed:23797032). Recruited with TIMELESS factor upon DNA-replication stress response at DNA replication fork to preserve replication fork progression, and hence ensure DNA replication fidelity (PubMed:26503245). Cooperates also with TIMELESS factor during DNA replication to regulate proper sister chromatid cohesion and mitotic chromosome segregation (PubMed:17105772, PubMed:18499658, PubMed:20124417, PubMed:23116066, PubMed:23797032). Stimulates 5'-single-stranded DNA flap endonuclease activity of FEN1 in an ATP- and helicase-independent manner, and hence it may contribute in Okazaki fragment processing at DNA replication fork during lagging strand DNA synthesis (PubMed:18499658). Its ability to function at DNA replication fork is modulated by its binding to long non-coding RNA (lncRNA) cohesion regulator non-coding RNA DDX11-AS1/CONCR, which is able to increase both DDX11 ATPase activity and binding to DNA replicating regions (PubMed:27477908). Also plays a role in heterochromatin organization (PubMed:21854770). Involved in rRNA transcription activation through binding to active hypomethylated rDNA gene loci by recruiting UBTF and the RNA polymerase Pol I transcriptional machinery (PubMed:26089203). Plays a role in embryonic development and prevention of aneuploidy (By similarity). Involved in melanoma cell proliferation and survival (PubMed:23116066). Associates with chromatin at DNA replication fork regions (PubMed:27477908). Binds to single- and double-stranded DNAs (PubMed:9013641, PubMed:18499658, PubMed:22102414). {ECO:0000250|UniProtKB:Q6AXC6, ECO:0000269|PubMed:10648783, ECO:0000269|PubMed:17105772, ECO:0000269|PubMed:18499658, ECO:0000269|PubMed:20124417, ECO:0000269|PubMed:21854770, ECO:0000269|PubMed:22102414, ECO:0000269|PubMed:23116066, ECO:0000269|PubMed:23797032, ECO:0000269|PubMed:26089203, ECO:0000269|PubMed:26503245,

Target Details

	ECO:0000269|PubMed:27477908}., FUNCTION: (Microbial infection) Required for bovine papillomavirus type 1 regulatory protein E2 loading onto mitotic chromosomes during DNA replication for the viral genome to be maintained and segregated. {ECO:0000269|PubMed:17189189}.
Molecular Weight:	108.3 kDa
UniProt:	Q96FC9
Pathways:	ER-Nucleus Signaling

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

