Datasheet for ABIN3095001

RECQL5 Protein (AA 1-991) (Strep Tag)

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Overview

Quantity:	1 mg
Target:	RECQL5
Protein Characteristics:	AA 1-991
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This RECQL5 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MSSHHTTFPF DPERRVRSTL KKVFGFDSFK TPLQESATMA VVKGNKDVFV CMPTGAGKSL CYQLPALLAK GITIVVSPLI ALIQDQVDHL LTLKVRVSSL NSKLSAQERK ELLADLEREK PQTKILYITP EMAASSSFQP TLNSLVSRHL LSYLVVDEAH CVSQWGHDFR PDYLRLGALR SRLGHAPCVA LTATATPQVQ EDVFAALHLK KPVAIFKTPC FRANLFYDVQ FKELISDPYG NLKDFCLKAL GQEADKGLSG CGIVYCRTRE ACEQLAIELS CRGVNAKAYH AGLKASERTL VQNDWMEEKV PVIVATISFG MGVDKANVRF VAHWNIAKSM AGYYQESGRA GRDGKPSWCR LYYSRNDRDQ VSFLIRKEVA KLQEKRGNKA SDKATIMAFD ALVTFCEELG CRHAAIAKYF GDALPACAKG CDHCQNPTAV RRRLEALERS SSWSKTCIGP SQGNGFDPEL YEGGRKGYGD FSRYDEGSGG SGDEGRDEAH KREWNLFYQK QMQLRKGKDP KIEEFVPPDE NCPLKEASSR RIPRLTVKAR EHCLRLLEEA LSSNRQSTRT ADEADLRAKA VELEHETFRN AKVANLYKAS VLKKVADIHR ASKDGQPYDM GGSAKSCSAQ AEPPEPNEYD IPPASHVYSL KPKRVGAGFP KGSCPFQTAT ELMETTRIRE QAPQPERGGE HEPPSRPCGL LDEDGSEPLP GPRGEVPGGS

AHYGGPSPEK KAKSSSGGSS LAKGRASKKQ QLLATAAHKD SQSIARFFCR RVESPALLAS APEAEGACPS CEGVQGPPMA PEKYTGEEDG AGGHSPAPPQ TEECLRERPS TCPPRDQGTP EVQPTPAKDT WKGKRPRSQQ ENPESQPQKR PRPSAKPSVV AEVKGSVSAS EQGTLNPTAQ DPFQLSAPGV SLKEAANVVV KCLTPFYKEG KFASKELFKG FARHLSHLLT QKTSPGRSVK EEAQNLIRHF FHGRARCESE ADWHGLCGPQ R

Sequence without tag. The proposed Strep-Tag is based on experience s 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 in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified by multi-step, protein-specific process to ensure correct folding and modification.
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- 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 will ensure that you receive a correctly folded protein.

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.

Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Concentration:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.
- The protein's absorbance will be measured in several dilutions and is measured against its

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	specific reference buffer. • We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.
Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®): 1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. Eluate fractions are analyzed by SDS-PAGE. 2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)

Target Details

Target:	RECQL5
Alternative Name:	RECQL5 (RECQL5 Products)
Background:	ATP-dependent DNA helicase Q5 (EC 5.6.2.4) (DNA 3'-5' helicase RecQ5) (DNA helicase, RecQ-like type 5) (RecQ5) (RecQ protein-like 5),FUNCTION: DNA helicase that plays an important role in DNA replication, transcription and repair (PubMed:20643585, PubMed:22973052, PubMed:28100692). Probably unwinds DNA in a 3'-5' direction (PubMed:28100692) (Probable). Binds to the RNA polymerase II subunit POLR2A during transcription elongation and suppresses transcription-associated genomic instability (PubMed:20231364). Associates also with POLR1A and enforces the stability of ribosomal DNA arrays (PubMed:27502483). Plays an important role in mitotic chromosome separation after cross-over events and cell cycle progress (PubMed:22013166). Mechanistically, removes RAD51 filaments protecting stalled replication forks at common fragile sites and stimulates MUS81-EME1 endonuclease leading to mitotic DNA synthesis (PubMed:28575661). Required for efficient DNA repair, including repair of inter-strand cross-links (PubMed:23715498). Stimulates DNA decatenation mediated by TOP2A. Prevents sister chromatid exchange and homologous recombination. A core helicase fragment (residues 11-609) binds preferentially to splayed duplex, looped and ssDNA (PubMed:28100692). {ECO:0000269|PubMed:20231364, ECO:0000269|PubMed:20348101, ECO:0000269|PubMed:20643585, ECO:0000269|PubMed:22013166, ECO:0000269|PubMed:22973052, ECO:0000269|PubMed:23715498, ECO:0000269|PubMed:23748380, ECO:0000269|PubMed:27502483,

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	ECO:0000269|PubMed:28100692, ECO:0000269|PubMed:28575661, ECO:0000305|PubMed:28100692}.
Molecular Weight:	108.9 kDa
UniProt:	O94762

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.
Comment:	ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications. During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

