Datasheet for ABIN3135712

DNA Helicase B Protein (HELB) (AA 1-1074) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	DNA Helicase B (HELB)
Protein Characteristics:	AA 1-1074
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This DNA Helicase B protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Brand:	AliCE®
Sequence:	MARQDRLREL LGPLHPYKSD DEEEDCAQEE EGEQEEEFVD AEELCSGGIK AGSLPGRARV SIPDEYTKEK CTVYGRFPLK GPWWRVKVQV LKPQRSRSYQ VQGFPAYFLQ VDMSPPDQKQ ICSLFLKECN LASERIQEFL KWVEKVSSFE NLHFENLWET LRLFYRETEK KDKKLSTPRE QQGEEMRVEK SFAFISAMVA LQFPKVMEFL PSLFPRHFKR LISSSSDWVL GCIEDVLGTQ PWKLGFRRIT YREMKLVRCE ASWTAFSQCP SLLQLMTPLQ KNALVIYSKL RQTCREDGHT YIEVKDLTSG LSEHMSFEEA CQSLAFLKDI DVVIYEKDYV FLSELYEAEQ DIASSICELM SRPPWHLKVD VKNVLASIRG AKPNDPGSAE AVEGSKPEEV GSEQGDSVLD AQDGDDHVRS NGEHVANAEI NDVPLDQDQV VALETICANA VTVLSGKGGC GKTTIVSRLF KHMEHLEETE VQQACEDFEQ DQEASEEWLD CPKQSPAGVD KAVEVLLTAP TGKAAGLLRQ RTDLPAYTLC QVNYSFYMWK TKNEVDKPWK FSTVRVLVVD EGSLVSVGIF KSVLQLLCKH SKLSKLIILG DVRQLPSIEP GNMLQDVFET LKSRQCAIEL KTNHRTESQL IVDNATRISR RQFPKFDAEL

NICGNPTLPL SIQDKTFIFV RLPEEDSRSQ SSKGEHRSNL YTAVKTLLQG KDFCSFESSK TSQFIAFRRQ DCDLINDCCC KHYTGHLIKD HEKKLIFAVG DKICCTRNAY LSDLLPDKDQ EAEGKGYGDA PDDDAKIKQD FESSTRLCNG EIFFITRDVT DVTFKRKRLL TINNEAGLEV TVDFSKLMAN CQIKHAWART IHTFQGSEEN TVVYVVGKAG RQHWQHVYTA VTRGRSRVYI IAQESELRSA TRKRGFPRQT RLKHFLQKKL SGSCAPSTGF ASQPSSPRVG GRPDTQPPAS HLCRTPDNKA TADSARGDER WLSASVNDDV DTDEESAQLR GSKRIGDGFP FDEESPSKFR MVEAPSPQVS SVFQNMRLNT LTPRQLFKPT DNQDTGTAGV ADDANDPSNQ EMEM

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 in one-step affinity chromatography
- 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 try to ensure that you receive soluble 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.

Product Details

- The protein's absorbance will be measured against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	DNA Helicase B (HELB)
Alternative Name:	Helb (HELB Products)
Background:	DNA helicase B (EC 3.6.4.12),FUNCTION: 5'-3' DNA helicase involved in DNA damage response by acting as an inhibitor of DNA end resection (PubMed:26774285). Recruitment to single-stranded DNA (ssDNA) following DNA damage leads to inhibit the nucleases catalyzing resection, such as EXO1, BLM and DNA2, possibly via the 5'-3' ssDNA translocase activity of HELB (PubMed:26774285). As cells approach S phase, DNA end resection is promoted by the nuclear export of HELB following phosphorylation (PubMed:26774285). Acts independently of TP53BP1 (PubMed:26774285). Unwinds duplex DNA with 5'-3' polarity. Has single-strand DNA-dependent ATPase and DNA helicase activities. Prefers ATP and dATP as substrates. During S phase, may facilitate cellular recovery from replication stress (PubMed:11557815, PubMed:7596831, PubMed:7794903). {ECO:0000269|PubMed:11557815, ECO:0000269|PubMed:26774285, ECO:0000269|PubMed:7596831, ECO:0000269|PubMed:7794903}.
Molecular Weight:	121.5 kDa
UniProt:	Q6NVF4

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

Application Details

	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. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months