Datasheet for ABIN3135662

FAN1 Protein (AA 1-1020) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	FAN1
Protein Characteristics:	AA 1-1020
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This FAN1 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Brand:	AliCE®
Sequence:	MPSQRKSPDQ KRPRRSLSTS KTAKSQCHSI TSYFNSAPPA KLACSTCHKM VPRYDLIRHL DESCANNGVG DDVQVEPAQA GLMSPTVPTS DLPSGPLENV TPQKLSPPKR SLISVQCGSK LGIQQQTSPY FKDALVSKDQ NELPNQSVEI MPLGSLTSKL SRRYLNAKKS LAKNEGLASQ CPQTSPSTPG TSLTDNCPEM EDKDEVLNSS QKENIYSCAP LKEENASEQK VKNNKITGDE SQKASCGEPA LTPASAEHAS ILLSSDSTLV SNTKSSPGDT LVKQESARRA DVGLAEPLEV RSHKEVQMTF DAAAKTLVSG EAESNGPTDV DMSDMTTWSN NQELVREAGS VLHCPLEQGS SCGGPSETAQ LALSHPYYLR SFLVVLQALL GNEEDMKLFD EQEKAIITRF YQLSASGQKL YVRLFQRKLT WIKMSKLEYE EIASDLTPVV EELKDSGFLQ TESELQELSD VLELLSAPEL KALAKTFHLV SPGGQKQQLV DAFHKLAKQR SVCTWGKTQP GIRAVILKRA KDLAGRSLRV CKGPRAVFAR ILLLFSLTDS MEDEEAACGG QGQLSTVLLV NLGRMEFPQY TICRKTQIFR DREDLIRYAA AAHMLSDISA AMASGNWEDA KELARSAKRD WEQLKSHPSL RYHEALPPFL

RCFTVGWIYT RISSRAVEVL ERLHMYEEAV KELENLLSQK IYCPDSRGRW WDRLALNLHQ HLKRLEEAIR CIREGLADPH VRTGHRLSLY QRAVRLRESP SCRKYKHLFS RLPEVAVGDV KHVTITGRLC PQHGMGKSVF VMESGDGANP TTVLCSVEEL ALGYYRQSGF DQGIHGEGST FSTLCGLLLW DIIFMDGIPD VFRNAYQASP LDLLTDSFFA SREQALEARL QLIHSAPAES LRAWVGEAWQ AQQGRVASLV SWDRFTSLQQ AQDLVSCLGG PVLSGVCRRL AADFRHCRGG LPDLVVWNSQ SHHCKLVEVK GPSDRLSCKQ MIWLYELQKL GADVEVCHVV AVGAKSKGLG

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.
- The protein's absorbance will be measured against its specific reference buffer.

Product Details

- 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:	FAN1
Alternative Name:	Fan1 (FAN1 Products)
Background:	Fanconi-associated nuclease 1 (EC 3.1.21.-) (EC 3.1.4.1) (FANCD2/FANCI-associated nuclease 1) (mFAN1) (Myotubularin-related protein 15),FUNCTION: Nuclease required for the repair of DNA interstrand cross-links (ICL) recruited at sites of DNA damage by monoubiquitinated FANCD2. Specifically involved in repair of ICL-induced DNA breaks by being required for efficient homologous recombination, probably in the resolution of homologous recombination intermediates (By similarity). Not involved in DNA double-strand breaks resection. Acts as a 5'-3' exonuclease that anchors at a cut end of DNA and cleaves DNA successively at every third nucleotide, allowing to excise an ICL from one strand through flanking incisions (PubMed:24981866). Probably keeps excising with 3'-flap annealing until it reaches and unhooks the ICL. Acts at sites that have a 5'-terminal phosphate anchor at a nick or a 1- or 2-nucleotide flap and is augmented by a 3' flap (By similarity). Also has endonuclease activity toward 5'-flaps (PubMed:24981866). {ECO:0000250|UniProtKB:Q9Y2M0, ECO:0000269|PubMed:24981866}.
Molecular Weight:	112.9 kDa
UniProt:	Q69ZT1
Pathways:	DNA Damage Repair

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.

Application Details

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. 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