Datasheet for ABIN3092577

FAN1 Protein (AA 1-1017) (Strep Tag)

Go to Product page

Overview

Quantity:	1 mg
Target:	FAN1
Protein Characteristics:	AA 1-1017
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This FAN1 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence:	MMSEGKPPDK KRPRRSLSIS KNKKKASNSI ISCFNNAPPA KLACPVCSKM VPRYDLNRHL DEMCANNDFV QVDPGQVGLI NSNVSMVDLT SVTLEDVTPK KSPPPKTNLT PGQSDSAKRE VKQKISPYFK SNDVVCKNQD ELRNRSVKVI CLGSLASKLS RKYVKAKKSI DKDEEFAGSS PQSSKSTVVK SLIDNSSEIE DEDQILENSS QKENVFKCDS LKEECIPEHM VRGSKIMEAE SQKATRECEK SALTPGFSDN AIMLFSPDFT LRNTLKSTSE DSLVKQECIK EVVEKREACH CEEVKMTVAS EAKIQLSDSE AKSHSSADDA SAWSNIQEAP LQDDSCLNND IPHSIPLEQG SSCNGPGQTT GHPYYLRSFL VVLKTVLENE DDMLLFDEQE KGIVTKFYQL SATGQKLYVR LFQRKLSWIK MTKLEYEEIA LDLTPVIEEL TNAGFLQTES ELQELSEVLE LLSAPELKSL AKTFHLVNPN GQKQQLVDAF LKLAKQRSVC TWGKNKPGIG AVILKRAKAL AGQSVRICKG PRAVFSRILL LFSLTDSMED EDAACGGQGQ LSTVLLVNLG RMEFPSYTIN RKTHIFQDRD DLIRYAAATH MLSDISSAMA NGNWEEAKEL AQCAKRDWNR LKNHPSLRCH EDLPLFLRCF TVGWIYTRIL SRFVEILQRL HMYEEAVREL ESLLSQRIYC PDSRGRWWDR LALNLHQHLK

RLEPTIKCIT EGLADPEVRT GHRLSLYQRA VRLRESPSCK KFKHLFQQLP EMAVQDVKHV TITGRLCPQR GMCKSVFVME AGEAADPTTV LCSVEELALA HYRRSGFDQG IHGEGSTFST LYGLLLWDII FMDGIPDVFR NACQAFPLDL CTDSFFTSRR PALEARLQLI HDAPEESLRA WVAATWHEQE GRVASLVSWD RFTSLQQAQD LVSCLGGPVL SGVCRHLAAD FRHCRGGLPD LVVWNSQSRH FKLVEVKGPN DRLSHKQMIW LAELQKLGAE VEVCHVVAVG AKSQSLS

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

Product Details

	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)
Grade:	Crystallography grade

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) (hFAN1) (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 (PubMed:20603015, PubMed:20603016, PubMed:20603073, PubMed:20671156, PubMed:24981866, PubMed:25430771). Not involved in DNA double-strand breaks resection (PubMed:20603015, PubMed:20603016). 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. Probably keeps excising with 3'-flap annealing until it reaches and unhooks the ICL (PubMed:25430771). 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 (PubMed:25430771). Also has endonuclease activity toward 5'-flaps (PubMed:20603015, PubMed:20603016, PubMed:24981866). {ECO:0000269|PubMed:20603015, ECO:0000269|PubMed:20603016, ECO:0000269|PubMed:20603073, ECO:0000269|PubMed:20671156, ECO:0000269|PubMed:24981866,

Target Details

	ECO:0000269|PubMed:25135477, ECO:0000269|PubMed:25430771}.
Molecular Weight:	114.2 kDa
UniProt:	Q9Y2M0
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.
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)