



Datasheet for ABIN3135662
FAN1 Protein (AA 1-1020) (His tag)



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1 Image

Overview

Quantity:	1 mg
Target:	FAN1
Protein Characteristics:	AA 1-1020
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This FAN1 protein is labelled with His tag.
Application:	Crystallization (Crys), ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence:	<p>MPSQRKSPDQ KRPRRLSTS KTAKSQCHSI TSYFNSAPPA KLACSTCHKM VPRYDLIRHL DESCANNNGVG DDVQVEPAQA GLMSPTVPTS DLPSGPLENV TPQKLSPPKR SLISVQCGSK LGIQQTSPY FKDALVSKDQ NELPNQSVEI MPLGSLTSKL SRRYLNAKKS LAKNEGLASQ CPQTSPSTPG TSLTDNCPDM EDKDEVLNSS QKENIYSCAP LKEENASEQK VKNNKITGDE SQKASCGEPA LTPASAEHAS ILLSSDSTLV SNTKSSPGDT LVKQESARRA DVGLAEPLV RSHKEVQMTF DAAAKTLVSG EAESNGPTDV DMSDMTTWSN NQELVREAGS VLHCPLEQGS SCGGPSETAQ LALSHPYLYR SFLVVLQALL GNEEDMKLFD EQEKAIITRF YQLSASGQKL YVRLFQRKLT WIKMSKLEYE EIASDLTPVV EELKDSGFLQ TESELQELSD VLELLSAPEL KALAKTFHLV SPGGQKQLV DAFHKLAKQR SVCTWGKTQP GIRAVILKRA KDLAGRSLRV CKGPRAVFAR ILLFSLTDS MEDEEAACGG QGQLSTVLLV NLGRMEFPQY TICRKTQIFR DREDLIRYAA AAHMLSDISA AMASGNWEDA KELARSAKRD WEQLKSHPSL RYHEALPPFL RCFTVGWIYT RISSRAVEVL ERLHMYEEAV KELENLLSQK IYCPDSRGRW WDRLALNLHQ</p>
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HLKRLEEAIR CIREGLADPH VRTGHRLSLY QRAVRLRESP SCRKYKHLFS RLPEVAVGDV
KHVTITGRLC PQHGMGKSVF VMESGDGANP TTVLCSVEEL ALGYRQSGF DQGIHGEGST
FSTLCGLLLW DIIFMDGIPD VFRNAYQASP LDLLTDSFFA SREQALEARL QLIHSAPAES
LRAWVGEAWQ AQQGRVASLV SWDRFTSLQQ AQDLVSLGG PVLSGVCRRL AADFRHCRGG
LPDLVWWSQ SHHCKLVEVK GPSDRLSCKQ MIWLYELQKL GADVEVCHVV AVGAKSKGLG

Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.

Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Mouse Fan1 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- 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.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

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 specific reference buffer.

The concentration of the protein is calculated using its specific absorption coefficient. We use the ExPASy's protParam tool to determine the absorption coefficient of each protein.

Purification:

Two step purification of proteins expressed in baculovirus infected SF9 insect cells:

1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. 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.

Product Details

Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

Target Details

Target:	FAN1
Alternative Name:	Fan1 (FAN1 Products)
Background:	<p>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}.</p>
Molecular Weight:	113.9 kDa Including tag.
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.
Comment:	Protein has not been tested for activity yet. In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.

Application Details

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: 100 mM NaCl, 20 mM Hepes, 10% glycerol. pH value 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: Unlimited (if stored properly)

Images



Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process