

# Datasheet for ABIN7564028 FAN1 Protein (AA 1-1020) (His tag)



# Overview

Quantity:	1 mg
Target:	FAN1
Protein Characteristics:	AA 1-1020
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This FAN1 protein is labelled with His tag.

# **Product Details**

Purpose:	Custom-made recombinant Fan1 Protein expressed in mammalian cells.
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 Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary.

Specificity:

If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.

Characteristics:

Key Benefits:

- Made to order protein from design to production by highly experienced protein experts.
- Protein expressed in mammalian cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- · State-of-the-art algorithm used for plasmid design (Gene synthesis).

In case you have a special request, please contact us.

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.

If you are not interested in a full length protein, please contact us for individual protein fragments.

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.

Purity:

> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, 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: We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Restrictions: For Research Use only

# Handling

Format:

Liquid

Buffer:

The buffer composition 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:

12 months