

Datasheet for ABIN3092542

**FAM21C Protein (AA 1-1318) (His tag)**[Go to Product page](#)

## 1 Image

## Overview

Quantity:	1 mg
Target:	FAM21C
Protein Characteristics:	AA 1-1318
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This FAM21C protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

## Product Details

Sequence:	MMNRTTPDQE LVPASEPVWE RPWSVEEIRR SSQSWSLAAD AGLLQLQEF SQTISRTHE IKKQVDGLIR ETKATDCRLH NVFNDFLMLS NTQFIENRVY DEEVEEVLK AEAekteqEK TREQKEVDLI PKVQEAVNYG LQVLDSAFEQ LDIKAGNSDS EEDDANGRVE LILEPKDLYI DRPLPYLIGS KLFMEQEDVG LGELSSEEGS VGSDRGSIVD TEEKEEEEEES DEDFAHHSDN EQNQHTTQMS DEEEDDDGCD LFADSEKEEE DIEDIEENTR PKRSRPTSFA DELAARIKGD AMGRVDEEPT TLPSGEAKPR KTLKEKKERR TPSDDEEDNL FAPPKLTDED FSPFGSGGGL FSGGKGLFDD EDEESDLFTE ASQDRQAGAS VKEESSSSKP GKKIPAGAVS VFLGDTDVFG AASVPSLKEP QKPEQPTPRK SPYGGPPPTGL FDDDDGDDDD DFFSAPHSKP SKTRKVQSTA DIFGDEEGDL FKEKAVASPE ATVSQTDENK ARAEKKVTL SSKNLKPSSE TKTQKGLFSD EEDSEDLFSS QSASNLKGAS LLPGKLPTSV SLFDDEDEED NLFGGTAACK QTLSLQAQRE EKAKASELSK KKASALLFSS DEEWNIPASQ THLASDSRSK GEPRDSGTLQ SQEAKAVKKT SLFEEDKEDD LFAIAKDSQK KTQRVSLLE DDVDSGGSLF GSPPTSVPPA TKKKETVSEA
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PPLLFSDEEE KEAQLGVKSV DKKVESAKES LKFGRTDVAE SEKEGLLTRS AQETVKHSDL  
FSSSSPWDKG TKPRTKTVLS LFDEEEDKME DQNIQAPQK EVGKGCDPDA HPKSTGVFQD  
EELLFSHLQ KDNDPDVDF AGTKKTKLLE PSVGSFLGDD EDDDLFSSAK SQPLVQEKKR  
VVKKDHVSNS FKNQKHPESI QGSKEKGIWK PETPQANLAI NPAALLPTAA SQISEVKPVL  
PELAFPSSEH RRSHGLESVP VLPGSGEAGV SFDLPAQADT LHSANKSRVK MRGKRRPQTR  
AARRLAAQES SEAEDMSVPR GPAAQWADGA ISPNGHRPQL RAASGEDSTE EALAAAAAPW  
EGGPVPGVDT SPFAKSLGHS RGEADLFDSG DIFSTGTGSQ SVERTKPKAK IAENPANPPV  
GGKAKSPMFP ALGEASSDDD LFQSAKPKPA KKTNPFPLE DEDDLFTDQK VKKNETKSSS  
QQDVILTTQD IFEDDIFATE AIKPSQKTRE KEKTLESNLF DDNIDIFADL TVKPKEKSKK  
KVEAKSIFDD DMDDIFSTGI QAKTTKPKSR SAQAAPEPRF EHKVSNIFDD PLNAFGGQ

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

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### Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Human FAM21C Protein (raised in E. Coli) 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.

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### Purification:

Two step purification of proteins expressed in bacterial culture:

1. In a first purification step, the protein is purified from the cleared cell lysate using three

## Product Details

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.

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:	FAM21C
Alternative Name:	FAM21C ( <a href="#">FAM21C Products</a> )
Background:	<p>Acts at least in part as component of the WASH core complex whose assembly at the surface of endosomes inhibits WASH nucleation-promoting factor (NPF) activity in recruiting and activating the Arp2/3 complex to induce actin polymerization and is involved in the fission of tubules that serve as transport intermediates during endosome sorting. Mediates the recruitment of the WASH core complex to endosome membranes via binding to phospholipids and VPS35 of the retromer CSC. Mediates the recruitment of the F-actin-capping protein dimer to the WASH core complex probably promoting localized F-actin polymerization needed for vesicle scission (PubMed:19922874, PubMed:20498093, PubMed:22513087, PubMed:23331060). Via its C-terminus binds various phospholipids, most strongly phosphatidylinositol 4-phosphate (PtdIns-(4)P), phosphatidylinositol 5-phosphate (PtdIns-(5)P) and phosphatidylinositol 3,5-bisphosphate (PtdIns-(3,5)P<sub>2</sub>). Involved in the endosome-to-plasma membrane trafficking and recycling of SNX27-retromer-dependent cargo proteins, such as GLUT1 (PubMed:25278552). Required for the association of DNAJC13, SDCCAG3, ANKRD50 with retromer CSC subunit VPS35 (PubMed:24980502). Required for the endosomal recruitment of CCC complex subunits COMMD1, CCDC93 AND C16orf62 (PubMed:25355947). Plays a role in fluid-phase endocytosis, a process exploited by vaccinia intracellular mature virus (IMV) to enter cells. As a result, may facilitate the penetration of IMV into cells (PubMed:18550675). {ECO:0000269 PubMed:18550675, ECO:0000269 PubMed:19922874, ECO:0000269 PubMed:20498093, ECO:0000269 PubMed:22513087, ECO:0000269 PubMed:23331060, ECO:0000269 PubMed:24980502, ECO:0000269 PubMed:25278552, ECO:0000269 PubMed:25355947}.</p>

## Target Details

Molecular Weight: 145.6 kDa Including tag.

UniProt: [Q9Y4E1](#)

## 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: 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.

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