

Datasheet for ABIN3088931

## AIF Protein (AA 102-613) (His tag)



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### 1 Image

#### Overview

Quantity:	1 mg
Target:	AIF (AIFM1)
Protein Characteristics:	AA 102-613
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This AIF protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA, Crystallization (Crys)

#### Product Details

Sequence: LGLTPEQKQK KAALSASEGE EVPQDKAPSH VPFLIGGGT AAFAAARSIR ARDPGARVLI  
 VSEDPELPYM RPPLSKELWF SDDPNVTKTL RFKQWNGKER SIYFQPPSFY VSAQDLPHIE  
 NGGVAULTGK KVVQLDVRDN MVKLNDSQI TYEKLIATG GTPRSLAID RAGAEVKSRT  
 TLFRKIGDFR SLEKISREVK SITIIGGGFL GSELACALGR KARALGTEVI QLFPEKGNMG  
 KILPEYLSNW TMEKVRREGV KVMPNAIVQS VGVSSGKLLI KLKDGGRKVT DHIVAAGLE  
 PNVELAKTGG LEIDSDFGGF RVNAELQARS NIWVAGDAAC FYDIKLGRRR VEHHDHAVVS  
 GRLAGENMTG AAKPYWHQSM FWSDLGPDVG YEAIGLVDSS LPTVGVFAKA TAQDNPKSAT  
 EQSGTGIRSE SETESEASEI TIPPSTPAVP QAPVQGEDYG KGVIFYLRDK VVGIVLWNI  
 FNRMPIARKI IKDGEQHEDL NEVAKLFNIH ED

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

## Product Details

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- Characteristics:
- Made in Germany - from design to production - by highly experienced protein experts.
  - Human AIFM1 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.

- 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 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: Endotoxin has not been removed. Please contact us if you require endotoxin removal.

Grade: Crystallography grade

## Target Details

Target:	AIF (AIFM1)
Alternative Name:	AIFM1 ( <a href="#">AIFM1 Products</a> )
Background:	<p>Functions both as NADH oxidoreductase and as regulator of apoptosis. In response to apoptotic stimuli, it is released from the mitochondrion intermembrane space into the cytosol and to the nucleus, where it functions as a proapoptotic factor in a caspase-independent pathway. In contrast, functions as an antiapoptotic factor in normal mitochondria via its NADH oxidoreductase activity. The soluble form (AIFsol) found in the nucleus induces 'parthanatos' i.e. caspase-independent fragmentation of chromosomal DNA. Interacts with EIF3G, and thereby inhibits the EIF3 machinery and protein synthesis, and activates casapse-7 to amplify apoptosis. Plays a critical role in caspase-independent, pyknotic cell death in hydrogen peroxide-exposed cells. Binds to DNA in a sequence-independent manner.</p> <p>{ECO:0000269 PubMed:17094969, ECO:0000269 PubMed:19418225, ECO:0000269 PubMed:20362274, ECO:0000269 PubMed:23217327}.</p>
Molecular Weight:	56.8 kDa Including tag.
UniProt:	<a href="#">O95831</a>
Pathways:	<a href="#">Apoptosis</a> , <a href="#">Positive Regulation of Endopeptidase Activity</a> , <a href="#">Cell RedoxHomeostasis</a> , <a href="#">Smooth Muscle Cell Migration</a> , <a href="#">Warburg Effect</a>

## 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.

## Handling

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Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: Unlimited (if stored properly)

## Images

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