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



Image



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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 VPFLLIGGGT AAFAAARSIR ARDPGARVLI
VSEDPELPYM RPPLSKELWF SDDPNVTKTL RFKQWNGKER SIYFQPPSFY VSAQDLPHIE
NGGVAVLTGK KVVQLDVRDN MVKLNDGSQI TYEKCLIATG GTPRSLSAID RAGAEVKSRT
TLFRKIGDFR SLEKISREVK SITIIGGGFL GSELACALGR KARALGTEVI QLFPEKGNMG
KILPEYLSNW TMEKVRREGV KVMPNAIVQS VGVSSGKLLI KLKDGRKVET DHIVAAVGLE
PNVELAKTGG LEIDSDFGGF RVNAELQARS NIWVAGDAAC FYDIKLGRRR VEHHDHAVVS
GRLAGENMTG AAKPYWHQSM FWSDLGPDVG YEAIGLVDSS LPTVGVFAKA TAQDNPKSAT
EQSGTGIRSE SETESEASEI TIPPSTPAVP QAPVQGEDYG KGVIFYLRDK VVVGIVLWNI
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.

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 receival 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 (AIFM1 Products)
Background:	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 NADI
	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.
	{ECO:0000269 PubMed:17094969, ECO:0000269 PubMed:19418225,
	ECO:0000269 PubMed:20362274, ECO:0000269 PubMed:23217327}.
Molecular Weight:	56.8 kDa Including tag.
UniProt:	095831
Pathways:	Apoptosis, Positive Regulation of Endopeptidase Activity, Cell RedoxHomeostasis, Smooth
	Muscle Cell Migration, Warburg Effect
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
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Handling

Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

Images

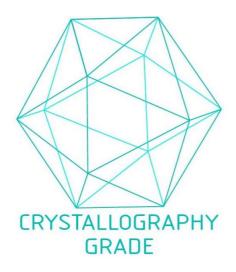


Image 1. "Crystallography Grade" protein due to multi-step, protein-specific purification process