Datasheet for ABIN3094175

NLRP1 Protein (AA 1-1473) (His tag)

1 Image

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Overview

Quantity:	1 mg
Target:	NLRP1
Protein Characteristics:	AA 1-1473
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This NLRP1 protein is labelled with His tag.
Application:	Crystallization (Crys), ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence:	MAGGAWGRLA CYLEFLKKEE LKEFQLLLAN KAHSRSSSGE TPAQPEKTSG MEVASYLVAQ YGEQRAWDLA LHTWEQMGLR SLCAQAQEGA GHSPSFPYSP SEPHLGSPSQ PTSTAVLMPW IHELPAGCTQ GSERRVLRQL PDTSGRRWRE ISASLLYQAL PSSPDHESPS QESPNAPTST AVLGSWGSPP QPSLAPREQE APGTQWPLDE TSGIYYTEIR ERE REKSEKG RPPWAAVVGT PPQAHTSLQP HHHPWEPSVR ESLCSTWPWK NEDFNQKFTQ LLLLQRPHPR SQDPLVKRSW PDYVEENRGH LIEIRDLFGP GLDTQEPRIV ILQGAAGIGK STLARQVKEA WGRGQLYGDR FQHVFYFSCR ELAQSKVVSL AELIGKDGTA TPAPIRQILS RPERLLFILD GVDEPGWVLQ EPSSELCLHW SQPQPADALL GSLLGKTILP EASFLITART TALQNLIPSL EQARWVEVLG FSESSRKEYF YRYFTDERQA IRAFRLVKSN KELWALCLVP WVSWLACTCL MQQMKRKEKL TLTSKTTTTL CLHYLAQALQ AQPLGPQLRD LCSLAAEGIW QKKTLFSPDD LRKHGLDGAI ISTFLKMGIL QEHPIPLSYS FIHLCFQEFF AAMSYVLEDE KGRGKHSNCI IDLEKTLEAY GIHGLFGAST TRFLLGLLSD EGEREMENIF HCRLSQGRNL MQWVPSLQLL LQPHSLESLH

CLYETRNKTF LTQVMAHFEE MGMCVETDME LLVCTFCIKF SRHVKKLQLI EGRQHRSTWS PTMVVLFRWV PVTDAYWQIL FSVLKVTRNL KELDLSGNSL SHSAVKSLCK TLRRPRCLLE TLRLAGCGLT AEDCKDLAFG LRANQTLTEL DLSFNVLTDA GAKHLCQRLR QPSCKLQRLQ LVSCGLTSDC CQDLASVLSA SPSLKELDLQ QNNLDDVGVR LLCEGLRHPA CKLIRLGLDQ TTLSDEMRQE LRALEQEKPQ LLIFSRRKPS VMTPTEGLDT GEMSNSTSSL KRQRLGSERA ASHVAQANLK LLDVSKIFPI AEIAEESSPE VVPVELLCVP SPASQGDLHT KPLGTDDDFW GPTGPVATEV VDKEKNLYRV HFPVAGSYRW PNTGLCFVMR EAVTVEIEFC VWDQFLGEIN PQHSWMVAGP LLDIKAEPGA VEAVHLPHFV ALQGGHVDTS LFQMAHFKEE GMLLEKPARV ELHHIVLENP SFSPLGVLLK MIHNALRFIP VTSVVLLYHR VHPEEVTFHL YLIPSDCSIR KAIDDLEMKF QFVRIHKPPP LTPLYMGCRY TVSGSGSGML EILPKELELC YRSPGEDQLF SEFYVGHLGS GIRLQVKDKK DETLVWEALV KPGDLMPATT LIPPARIAVP SPLDAPQLLH FVDQYREQLI ARVTSVEVVL DKLHGQVLSQ EQYERVLAEN TRPSQMRKLF SLSQSWDRKC KDGLYQALKE THPHLIMELW EKGSKKGLLP LSS

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 NLRP1 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 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

Product Details

	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.
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:	NLRP1
Alternative Name:	NLRP1 (NLRP1 Products)
Background:	As the sensor component of the NLRP1 inflammasome, plays a crucial role in innate immunity and inflammation. In response to pathogens and other damage-associated signals, initiates the formation of the inflammasome polymeric complex, made of NLRP1, CASP1, and possibly PYCARD. Recruitement of proCASP1 to the inflammasome promotes its activation and CASP1-catalyzed IL1B and IL18 maturation and secretion in the extracellular milieu. Activation of NLRP1 inflammasome is also required for HMGB1 secretion. The active cytokines and HMGB1 stimulate inflammatory responses. Inflammasomes can also induce pyroptosis, an inflammatory form of programmed cell death (PubMed:22665479, PubMed:17418785). May be activated by muramyl dipeptide (MDP), a fragment of bacterial peptidoglycan, in a NOD2-dependent manner (PubMed:18511561). Contrary to its mouse ortholog, not activated by Bacillus anthracis lethal toxin (PubMed:19651869). It is unclear whether isoform 2 is involved in inflammasome formation. It is not cleaved within the FIIND domain, does not assemble into specks, nor promote IL1B release (PubMed:22665479). However, in an vitro cell-free system, it has been shown to be activated by MDP (PubMed:17349957). Binds ATP (PubMed:11113115, PubMed:15212762). {ECO:0000250|UniProtKB:A1Z198, ECO:0000269|PubMed:11113115, ECO:0000269|PubMed:15212762, ECO:0000269|PubMed:17349957, ECO:0000269|PubMed:17418785, ECO:0000269|PubMed:18511561,

Target Details

	ECO:0000269|PubMed:19651869, ECO:0000269|PubMed:22665479}.
Molecular Weight:	166.8 kDa Including tag.
UniProt:	Q9C000
Pathways:	Positive Regulation of Endopeptidase Activity, Inflammasome

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 gurantee 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)

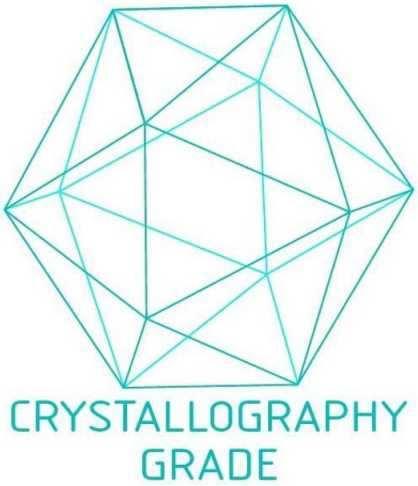

Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process