

Datasheet for ABIN3135072

NLRC4 Protein (AA 1-1024) (His tag)[Go to Product page](#)**1** Image

Overview

Quantity:	1 mg
Target:	NLRC4
Protein Characteristics:	AA 1-1024
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This NLRC4 protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

Product Details

Sequence:	MNFIRNNRRA LIQRMGLTVT KQICDDL FAL NVLNNQEANV IYCEPLEQEA ARKIIHMTMQ KGSAACNLFL KSLNWDYFV YQDLTGQNL S YQVTEEDLNV LAQNLKDLYN SPAFLNFYPL GEDIDIIFNL EKTFTPEIMW KKDHRHHRVE QLTGLSLLEA LKSPCLIEGE SGKGKSTLLQ RIAMLWASGG CRALKGFRLV FFIHLRSARG GLFETLYDQL LNIPDFISK TFKALLKLH KEVLFLLDGY NEFHPQNCPE IEALIKENHR FKNMVIVTTT TECLRHIRHV GALTAEVGDM TEDSAKDLIE AVLVPDQVER LWAQIQESRC LRNL MKTPLF VVITCAIQMG RQEFQAHTQT MLFQTFYDLL IQKNSHRYRG GASGDFARSL DYCGDLAEG VFAHKFDFEP EHGSSMNEDV LVTIGLLCKY TAQRLKPTYK FFHKS FQEY T AGRRLSSLLT SKEPEEVSKG NSYLNKMVSI SDITSLYGNL LLYTCGSSTE ATRAVMRHLA MVYQHGS LQG LSVTKRPLWR QESIQLRNT TEQDVLKAIN VNSFVECGIN LFS ESMSKSD LSQEF EAF FQ GKS LYINSEN IPDYLFDFFE YLPNCASALD FVKLDFYERA TESQDKAEEN VPGVHTEGPS ETYIPRAVS LFFNWKQEFK TLEVTLRDIN KLNKQDIKYL GKIFSSATNL RLHIKRC AAM AGR LSSVLRT CKNMHTLMVE
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ASPLTTDDEQ YITSVTGLQN LSIHRLHTQQ LPGGLIDSLG NLKNLERLIL DDIRMNEEDA
KNLAEGLRSL KKMRLHLTH LSDIGEGMDY IVKSLSEESC DLQEMKLVAC CLTANSVKVL
AQNLHNLIKL SILDISENYL EKDGNALQE LIGRLGVLGE LTTMLPWCW DVHTSLPKLL
KQLEGTPLA KLGLKNWRLR DEEIKSLGEF LEMNPLRDLQ QLDLAGHCVS SDGWLYFMNV
FENLKQLVFF DFSTEEFLPD AALVRKLSQV LSKLTLLQEV KLTGWFEEDY DISAIKGTKF LVTA

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.
- Mouse Nlrc4 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 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 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.

Product Details

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:	NLRC4
Alternative Name:	Nlrc4 (NLRC4 Products)
Background:	<p>Key component of inflammasomes that indirectly senses specific proteins from pathogenic bacteria and fungi and responds by assembling an inflammasome complex that promotes caspase-1 activation, cytokine production and macrophage pyroptosis. The NLRC4 inflammasome is activated as part of the innate immune response to a range of intracellular bacteria. It senses pathogenic proteins of the type III secretion system (T3SS) and type IV secretion system (T4SS) such as flagellin and PrgJ-like rod proteins via the Naip proteins (Naip1, Naip2 or Naip5): specific Naip proteins recognize and bind pathogenic proteins, driving assembly and activation of the NLRC4 inflammasome. The NLRC4 inflammasome senses Gram-negative bacteria such as <i>L.pneumophila</i> and <i>P.aeruginosa</i>, enteric pathogens <i>S.typhimurium</i> (<i>Salmonella</i>) and <i>S.flexneri</i> and fungal pathogen <i>C.albicans</i>. In intestine, the NLRC4 inflammasome is able to discriminate between commensal and pathogenic bacteria and specifically drives production of interleukin-1 beta (IL1B) in response to infection by <i>Salmonella</i> or <i>P.aeruginosa</i>. In case of <i>L.pneumophila</i> infection the inflammasome acts by activating caspase-7. {ECO:0000269 PubMed:15190255, ECO:0000269 PubMed:16648852, ECO:0000269 PubMed:16648853, ECO:0000269 PubMed:18070936, ECO:0000269 PubMed:19343209, ECO:0000269 PubMed:20133635, ECO:0000269 PubMed:20603313, ECO:0000269 PubMed:21874021, ECO:0000269 PubMed:21918512, ECO:0000269 PubMed:22174673, ECO:0000269 PubMed:22231517, ECO:0000269 PubMed:22484733, ECO:0000269 PubMed:22547706, ECO:0000269 PubMed:22885697}.</p>
Molecular Weight:	117.7 kDa Including tag.
UniProt:	Q3UP24
Pathways:	Activation of Innate immune Response , 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 guarantee though.
Comment:	Protein has not been tested for activity yet. 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