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Datasheet for ABIN3136806  
**NLRP6 Protein (AA 1-869) (His tag)**

1 Image

Overview

Quantity:	1 mg
Target:	NLRP6
Protein Characteristics:	AA 1-869
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This NLRP6 protein is labelled with His tag.
Application:	Crystallization (Crys), ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence:	<p>MDAAGASCSS VDAVARELLM ATLEELSQEQ LKFRHKLRLD APLDGRSIPW GRLERSDAVD          LVDKLIEFYE PVPVAVEMTRQ VLKRSIRDV ASRLKQQQLQ KLGPTSVLLS VSAFKKKYRE          HVLRQHAKVK ERNARSVKIN KRFTKLLIAP GTGAVEDELL GPLGEPEPER ARRSDTHTFN          RLFRGNDEES SQPLTVVLQG PAGIGKTMMAA KKILYDWAAG KLYHSQVDFA FFMPCGELLE          RPGKRSLADL VLDQCPDRAW PVKRILAQPN RLLFILDGAD ELPTLPSEA TPCKDPLEAT          SGLRVLSGLL SQELLPGARL LVTRRHAATG RLQGRLCSPQ CAEIRGFSDK DKKKYFFKFF          RDERKAERAY RFVKENETLF ALCFVPPVCW IVCTVLQQQL ELGRDLSRTS KTTTSVYLLF          ITSMLKSAGT NGPRVQGELR TLCRLAREGI LDHKAQFSE EDLEKCLKLRG SQVQTIFLNK          KEIPGVLKTE VTYQFIDQSF QEFLAALSYL LEAERTPGTP AGGVQKLLNS DAELRGHLAL          TTRFLFGLLN TEGLRDIGNH FGCVVPDHVK KDTLRWVQGQ SHPKGPPVGA KKTALEDIE          DAESEEEEEEE DLNFGLELLY CLYETQEEDF VRQALSSLPE IVLERVRLTR MDLEVLNYCV          QCCPDGQALR LVSCGLVAAK EKKKKKSLV KRLKGSQSTK KQPPVSLLRP LCETMTTPKC</p>
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HLSVLILSHC RLPDAVCRDL SEALKVAPAL RELGLLQSRL TNTGLRLLCE GLAWPKCQVK  
TLRMQLPDLQ EVINYLVIVL QQSPVLTTLD LSGCQLPGVI VEPLCAALKH PKCSLKTLSL  
TSVELSENSL RDLQAVKTSK PDLSEIYSK

**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.
- Mouse Nlrp6 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.

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### 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.

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### Purity:

>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

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### Sterility:

0.22 µm filtered

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## Product Details

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Endotoxin Level: Protein is endotoxin free.

Grade: Crystallography grade

## Target Details

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Target: NLRP6

Alternative Name: Nlrp6 ([NLRP6 Products](#))

Background: As the sensor component of the NLRP6 inflammasome, plays a crucial role in innate immunity and inflammation. In response to yet unidentified signals, initiates the formation of the inflammasome polymeric complex, made of NLRP6, PYCARD and CASP1 (or possibly CASP4/CASP11). Recruitment of proCASP1 to the inflammasome promotes its activation and CASP1-catalyzed IL1B and IL18 maturation and secretion in the extracellular milieu. The precise NLRP6 activation stimulus has not been identified yet (By similarity) (PubMed:21593405). Essential for gut mucosal self-renewal and proliferation (PubMed:21593405, PubMed:21565393, PubMed:21543645). Maintains intestinal homeostasis and a healthy intestinal microbiota (PubMed:21565393, PubMed:22763455). This function is, at least partially, mediated by IL18, and not IL1B, produced by nonhematopoietic cells (PubMed:21565393). Influences intestinal barrier function and microbial homeostasis through the regulation of goblet cell mucus secretion. Acts by promoting autophagy in goblet cells, an essential step for mucus granule exocytosis. Its role in goblet cell physiology is inflammasome-dependent, but IL1B- and IL18-independent (PubMed:24581500). During systemic bacterial infections, may negatively regulate inflammatory signaling and inhibit the influx of monocytes and neutrophils to the circulation and to the peritoneum (PubMed:22763455). May promote peripheral nerve recovery following injury via an inflammasome-independent mechanism (PubMed:26253422). {ECO:0000250|UniProtKB:Q96P20, ECO:0000269|PubMed:21543645, ECO:0000269|PubMed:21565393, ECO:0000269|PubMed:21593405, ECO:0000269|PubMed:22763455, ECO:0000269|PubMed:24581500, ECO:0000269|PubMed:26253422}.

Molecular Weight: 98.4 kDa Including tag.

UniProt: [Q91WS2](#)

Pathways: [Inflammasome](#)

## Application Details

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Application Notes: In addition to the applications listed above we expect the protein to work for functional studies

## Application Details

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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

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**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

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