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Datasheet for ABIN3137459

NLRP5 Protein (AA 1-1163) (Strep Tag)

Overview

Quantity:	1 mg
Target:	NLRP5
Protein Characteristics:	AA 1-1163
Origin:	Mouse
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This NLRP5 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence:	MGPPEKESKA ILKARGLEEE QKSERKMTSP ENDSKSIQKD QGPEQEQTSE STMGPPEKES KAILKARGLE EEQKSERKMT SPENDSKSIQ KDQGPEQEQT SESTMGPPEK DSKAILKARG LEEEQKSEST MSPSENVSRA ILKDSGSEEV EQASERKMTS PENDSKSIQK DQGPEQEQT ETLQSKEEDE VTEADKDNGG DLQDYKAHVI AKFDTSVDLH YDSPMKLLS DAFKPYQKTF QPHTIILHGR PGVGKSALAR SIVLGWAQGK LFQKMSFVIF FSVREIKWTE KSSLAQLIAK ECPDSWDLVT KIMSQPERLL FVIDGLDDMD SVLQHDDMTL SRDWKDEQPI YILMYSLLRK ALLPQSFLII TTRNTGLEKL KSMVVSPLYI LVEGLSASRR SQLVLENISN ESDRIQVFHS LIENHQLFDQ CQAPSVCSLV CEALQLQKKL GKRCTLPCQT LTGLYATLVF HQLTLKRPSQ SALSQEEQIT LVGLCMMAAE GVWTMRSVFY DDDLKNYSK ESEILALFHM NILLQVGHNS EQCYVFSHLS LQDFFAALYY VLEGLEEWNQ HFCFIENQRS IMEVKRTDDT RLLGMKRFLF GLMNKDILKT LEVLFEYPVI PTVEQKLQHW VSLIAQQVNG TSPMDTLDAF YCLFESQDEE FVGALKRFQ EVWLLINQKM DLKVSSYCLK HCQNLKAIRV DIRDLLSDVN TLELCPVVTV
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QETQCKPLLM EWWGNFCSVL GSLRNLKELD LGDSILSQRA MKILCLELRN QSCRIQKLT
KSAEVSGLK HLWKLLFSNQ NLKYLNLGNT PMKDDDMKLA CEALKHPKCS VETLRDLSCE
LTIIGYEMIS TLLISTTRLK CLSLAKNRVG VKSMISLGNA LSSSMCLLQK LILDNCGLTP
ASCHLLVSAL FSNQNLTHLC LSNNSLGTGEG VQQLCQFLRN PECALQRLIL NHCNIVDDAY
GFLAMRLANN TKLTHLSLTM NPVG DGAMKL LCEALKEPTC YLQELELVDC QLTQNCCEDL
ACMITTTKHL KSLDLGNNAL GDKGVITLCE GLKQSSSSLR RLGLGACKLT SNCCEALSLA
ISCNPHLNSL NLVKNDFSTS GMLKLCSAFQ CPVSNLGIIG LWKQEYYARV RRQLEEVEFV
KPHVVIDGDW YASDEDDRNV WKN

Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.

Characteristics:

Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified by multi-step, protein-specific process to ensure correct folding and modification.
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- 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.

Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Product Details

Concentration:

- 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.
- We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

Purification:

Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®):

1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. 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:

≥ 80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

Endotoxin Level:

Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)

Grade:

Crystallography grade

Target Details

Target:

NLRP5

Alternative Name:

Nlrp5 ([NLRP5 Products](#))

Background:

NACHT, LRR and PYD domains-containing protein 5 (Maternal antigen that embryos require) (Mater protein) (Ooplasm-specific protein 1) (OP1),FUNCTION: As a member of the subcortical maternal complex (SCMC), plays an essential role for zygotes to progress beyond the first embryonic cell divisions via regulation of actin dynamics (PubMed:11062459, PubMed:18804437, PubMed:25208553). Required for the formation of F-actin cytoplasmic lattices (CPL) in oocytes, which in turn are responsible for symmetric division of zygotes via the regulation of mitotic spindle formation and positioning (PubMed:25208553). Required for the localization of cortical granules to the cortex of oocytes, via association with the cortical actin scaffold (PubMed:31118423). Required for cortical actin clearance prior to oocyte exocytosis and prevention of polyspermy (PubMed:31118423). Involved in regulating post-fertilization Ca(2+) release and endoplasmic reticulum storage (ER) storage via regulation of cellular localization (PubMed:24374158). May be involved in the localization of mitochondria to the cytoplasm and perinuclear region in oocytes and early stage embryos, independent of its role in CPL formation (PubMed:22357545). {ECO:0000269|PubMed:11062459,

Target Details

ECO:0000269|PubMed:18804437, ECO:0000269|PubMed:22357545,
ECO:0000269|PubMed:24374158, ECO:0000269|PubMed:25208553,
ECO:0000269|PubMed:31118423}.

Molecular Weight: 131.3 kDa

UniProt: [Q9R1M5](#)

Pathways: [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.

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During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: Unlimited (if stored properly)