Datasheet for ABIN7564804

NLRP6 Protein (AA 1-869) (His tag)

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Overview

Quantity:	1 mg
Target:	NLRP6
Protein Characteristics:	AA 1-869
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This NLRP6 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant Nlrp6 Protein expressed in mammalian cells.
Sequence:	MDAAGASCSS VDAVARELLM ATLEELSQEQ LKRFRHKLRD APLDGRSIPW GRLERSDAVD LVDKLIEFYE PVPAVEMTRQ VLKRSDIRDV ASRLKQQQLQ KLGPTSVLLS VSAFKKKYRE HVLRQHAKVK ERNARSVKIN KRFTKLLIAP GTGAVEDELL GPLGEPEPER ARRSDTHTFN RLFRGNDEES SQPLTVVLQG PAGIGKTMAA KKILYDWAAG KLYHSQVDFA FFMPCGELLE RPGKRSLADL VLDQCPDRAW PVKRILAQPN RLLFILDGAD ELPTLPSSEA TPCKDPLEAT SGLRVLSGLL SQELLPGARL LVTTRHAATG RLQGRLCSPQ CAEIRGFSDK DKKKYFFKFF RDERKAERAY RFVKENETLF ALCFVPFVCW IVCTVLQQQL ELGRDLSRTS KTTTSVYLLF ITSMLKSAGT NGPRVQGELR TLCRLAREGI LDHHKAQFSE EDLEKLKLRG SQVQTIFLNK KEIPGVLKTE VTYQFIDQSF QEFLAALSYL LEAERTPGTP AGGVQKLLNS DAELRGHLAL TTRFLFGLLN TEGLRDIGNH FGCVVPDHVK KDTLRWVQGQ SHPKGPPVGA KKTAELEDIE DAEEEEEEEE DLNFGLELLY CLYETQEEDF VRQALSSLPE IVLERVRLTR MDLEVLNYCV QCCPDGQALR LVSCGLVAAK EKKKKKKSLV KRLKGSQSTK KQPPVSLLRP LCETMTTPKC

Product Details

	HLSVLILSHC RLPDAVCRDL SEALKVAPAL RELGLLQSRL TNTGLRLLCE GLAWPKCQVK TLRMQLPDLQ EVINYLVIVL QQSPVLTTLD LSGCQLPGVI VEPLCAALKH PKCSLKTLSL TSVELSENSL RDLQAVKTSK PDLSIIYSK **Sequence without tag. The proposed Purification-Tag is based on experiences 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.**
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.
Characteristics:	Key Benefits: • Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalian cells and purified in one-step affinity chromatography • The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins. • 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 try to ensure that you receive soluble protein. If you are not interested in a full length protein, please contact us for individual protein fragments. 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.
Purity:	> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made

Target Details

Target:	NLRP6
Alternative Name:	Nlrp6 (NLRP6 Products)
Background:	NACHT, LRR and PYD domains-containing protein 6 (Angiotensin II/vasopressin receptor) (Non-angiotensin-vasopressin receptor) (Non-AVR) (PYRIN-containing APAF1-like protein 5-like),FUNCTION: Acts as the sensor component of the NLRP6 inflammasome, which mediates inflammasome activation in response to various pathogen-associated signals, leading to maturation and secretion of IL1B and IL18 (PubMed:21593405, PubMed:30392956,

PubMed:32424362, PubMed:34678144). Inflammasomes are supramolecular complexes that assemble in the cytosol in response to pathogens and other damage-associated signals and play critical roles in innate immunity and inflammation (PubMed:30392956). Acts as a recognition receptor (PRR): recognizes and binds specific pathogens and other damage-associated signals, such as lipoteichoic acid (LTA), a cell-wall component of Gram-positive bacteria, or double stranded RNA (dsRNA) (PubMed:26494172, PubMed:30392956, PubMed:34678144). May also recognize and bind lipopolysaccharide (LPS), a major component of the outer membrane of Gram-negative bacteria, however, LPS is probably not a major activator of the NLRP6 inflammasome (PubMed:34678144). Following LTA- or dsRNA-binding, NLRP6 undergoes liquid-liquid phase separation (LLPS), enhancing multivalent interactions, an essential step for the formation of the NLRP6 inflammasome polymeric complex (PubMed:34678144). The NLRP6 inflammasome acts by promoting recruitment of effector pro-inflammatory caspases (CASP1 and/or CASP4) that catalyze maturation and secretion of IL1B and IL18 in the extracellular milieu (PubMed:30392956). The NLRP6 inflammasome plays a central role in the maintenance of epithelial integrity and host defense against microbial infections in the intestine (PubMed:21565393, PubMed:22763455, PubMed:23696660, PubMed:26638072, PubMed:28445725, PubMed:30392956). Required to restrict infection against Gram-positive bacteria by recognizing lipoteichoic acid (LTA), leading to recruitment of CASP4 and CASP1, and subsequent maturation and secretion of IL1B and IL18 (PubMed:30392956). Involved in intestinal antiviral innate immunity together with DHX15: recognizes and binds viral dsRNA to restrict infection by enteric viruses through the interferon pathway and GSDMD-dependent release of IL18 (PubMed:26494172, PubMed:34678144). Required to prevent infection by the apicomplexan parasite C.tyzzeri in enterocytes by promoting GSDMD-dependent release of IL18 (PubMed:33372132). The NLRP6 inflammasome may also regulate the gut microbiota composition by acting as a sensor of microbiota-associated metabolites to form a PYCARD/ASC-dependent inflammasome for downstream IL18 release and secretion of antimicrobial peptides (PubMed:21565393, PubMed:22763455, PubMed:26638072, PubMed:33617596). Its role in the regulation of the gut microbiota composition is however subject to discussion (PubMed:29281815, PubMed:29281837, PubMed:28801232). Essential for gut mucosal self-renewal and proliferation (PubMed:21593405, PubMed:21543645, PubMed:21565393). Regulate mucus secretion in an inflammasome- and autophagy-dependent manner to prevent invasion by enteric bacteria (PubMed:24581500, PubMed:27339979). During systemic bacterial infections, the NLRP6 inflammasome negatively regulates neutrophil recruitment and neutrophil extracellular traps (NETs) formation (PubMed:22763455, PubMed:30248149, PubMed:33918100, PubMed:33230225). May promote peripheral nerve recovery following injury via an

Target Details

	inflammasome-independent mechanism (PubMed:26253422). {ECO:0000269|PubMed:21543645, ECO:0000269|PubMed:21565393, ECO:0000269|PubMed:21593405, ECO:0000269|PubMed:22763455, ECO:0000269|PubMed:23696660, ECO:0000269|PubMed:24581500, ECO:0000269|PubMed:26253422, ECO:0000269|PubMed:26494172, ECO:0000269|PubMed:26638072, ECO:0000269|PubMed:27339979, ECO:0000269|PubMed:28445725, ECO:0000269|PubMed:28801232, ECO:0000269|PubMed:29281815, ECO:0000269|PubMed:29281837, ECO:0000269|PubMed:30248149, ECO:0000269|PubMed:30392956, ECO:0000269|PubMed:32424362, ECO:0000269|PubMed:33230225, ECO:0000269|PubMed:33372132, ECO:0000269|PubMed:33617596, ECO:0000269|PubMed:33918100, ECO:0000269|PubMed:34678144}.
Molecular Weight:	97.4 kDa
UniProt:	Q91WS2
Pathways:	Inflammasome

Application Details

Application Notes:	We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition 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:	12 months

