

NACHT, LRR and PYD Domains-Containing Protein 3 (NLRP3) Recombinant Protein | NLRP3 recombinant protein

Recombinant Human NACHT, LRR and PYD Domains-Containing Protein 3 (NLRP3), Partial

CATALOG # AAA235628	HOST E Coli
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PRODUCT SYNONYMS

NACHT; LRR and PYD Domains-Containing Protein 3 (NLRP3); Recombinant Human NACHT; Partial; Angiotensin/vasopressin receptor AII/AVP-like; CLR1.1; Cold-induced autoinflammatory syndrome 1 protein; Cryopyrin; PYRIN-containing APAF1-like protein 1; C1orf7; CIAS1; NALP3; PYPAF1; Caterpillar protein 1.1; NLRP3 recombinant protein

PRODUCT SPECIFICATIONS

Host	E Coli
Specificity	Predominantly expressed in macrophages. Also expressed in dendritic cells, B- and T-cells (at protein level) (PubMed:11786556) (PubMed:17164409). Expressed in LPS-treated granulocytes, but not in resting cells (at protein level) (PubMed:17164409). Expression in monocytes is very weak (at protein level) (PubMed:17164409). Expressed in stratified non-keratinizing squamous epithelium, including oral, esophageal and ectocervical mucosa and in the Hassall's corpuscles in the thymus. Also, detected in the stratified epithelium covering the bladder and ureter (transitional mucosa) (at protein level) (PubMed:17164409). Expressed in chondrocytes (PubMed:12032915). Expressed at low levels in resting osteoblasts (PubMed:17907925).
Purity/Purification	Greater or equal to 85% purity as determined by SDS-PAGE.
Form/Format	Lyophilized or liquid (Format to be determined during the manufacturing process)
Sequence Positions	1-536aa; Partial
Sequence	MKMASTRCKL ARYLEDLEDV DLKKFKMHLE DYPPQKGCIP LPRGQTEKAD HVDLATLMID FNGEKAWAM AVWIFAAINR RDLYEKAKRD EPKWGSDNAR VSNPTVICQE DSIEEEWMGL LEYLSRISIC KMKKDYRKKY RKYVRSRFQC IEDRNARLGE SVSLNKRYTR LRLIKEHRSQ QEREQELLAI GKTKTCESPV SPIKMELLFD PDDEHSEPVH TVVFQGAAGI GKTILARKMM LDWASGTLQY DRFDYLFYIH CREVSLVTQR SLGDLIMSCC PDPNPIHKI VRKPSRILFL MDGFDELQGA FDEHIGPLCT DWQKAERGD ILLSSLIRKKL LPEASLLITT RPVALEKLQH LLDHPRHVEI LGFSEAKRKE YFFKYFSDEA QARAAFSLIQ ENEVLFTMCF IPLVCWIVCT GLKQQMESGK SLAQTSKTTT AVYVFFLSSL LQPRGGSQEH GLCAHLWGLC SLAADGIWNQ KILFEESDLR NHGLQKADVS AFLRMNLFQK EVDCEKFYSF IHMTFQEFFA AMYYLL
Species	Human
Tag	N-terminal 6xHis-tagged
Subcellular Location	Cytoplasm, Cytosol, Inflammasome, Endoplasmic Reticulum, Secreted, Nucleus
Protein Families	NLRP family
Pathway	Lipids And Inflammation In Atherogenesis
Preparation and Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20 degree C/-80 degree C. The shelf life of lyophilized form is 12 months at -20 degree C/-80 degree C. Repeated freezing and thawing is not recommended. Store working aliquots at 4 degree C for up to one week.

ADDITIONAL INFORMATION

Related Product Information for NLRP3 recombinant protein	As the sensor component of the NLRP3 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 NLRP3, PYCARD and CASP1 (and possibly CASP4 and CASP5). Recruitment of proCASP1 to the inflammasome promotes its activation and CASP1-catalyzed IL1B and IL18 maturation and secretion in the extracellular milieu. Activation of NLRP3 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. Under resting conditions, NLRP3 is autoinhibited. NLRP3 activation stimuli include extracellular ATP, reactive oxygen species, K+ efflux, crystals of monosodium urate or cholesterol, amyloid-beta fibers, environmental or industrial particles and nanoparticles, cytosolic dsRNA, etc. However, it is unclear what constitutes the direct NLRP3 activator. Activation in presence of cytosolic dsRNA is mediated by DHX33. Independently of inflammasome activation, regulates the differentiation of T helper 2 (Th2) cells and has a role in Th2 cell-dependent asthma and tumor growth. During Th2 differentiation, required for optimal IRF4 binding to IL4 promoter and for IRF4-dependent IL4 transcription. Binds to the consensus DNA sequence 5'-GRRGGNRRGAG-3'. May also participate in the transcription of IL5, IL13, GATA3, CCR3, CCR4 and MAF.
References	"PYPAF1: a PYRIN-containing APAF1-like protein that assembles with ASC and activates NF-kB." Manji G.A., Wang L., Geddes B.J., Brown M., Merriam S., Al-Garawi A., Mak S., Lora J.M., Briskin M., Jurman M., Cao J., DiStefano P.S., Bertin J. J. Biol. Chem. 277:11570-11575(2002).

NCBI AND UNIPROT INFORMATION

NCBI GI #	34878690
NCBI GeneID	114548
NCBI Accession #	NP_899632
NCBI GenBank Nucleotide #	NM_183395.2
UniProt Accession #	Q96P20
Molecular Weight	66.1 kDa
NCBI Official Full Name	NACHT, LRR and PYD domains-containing protein 3 isoform b
NCBI Official Synonym Full Names	NLR family pyrin domain containing 3
NCBI Official Symbol	NLRP3
NCBI Official Synonym Symbols	Ali; AVP; FCU; MWS; FCAS; KEFH; CIAS1; FCAS1; NALP3; C1orf7; CLR1.1; DFNA34; PYPAF1; AGTAVPRL
NCBI Protein Information	NACHT, LRR and PYD domains-containing protein 3
UniProt Protein Name	NACHT, LRR and PYD domains-containing protein 3
UniProt Gene Name	NLRP3
UniProt Synonym Gene Names	C1orf7; CIAS1; NALP3; PYPAF1; CLR1.1
UniProt Entry Name	NALP3_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/nlrp3-recombinant-protein-e-coli/235628>