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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

Datasheet

NLRP3 (Human) Recombinant Protein (P01)

Catalog Number: H00114548-P01

Regulation Status: For research use only (RUO)

Product Description: Human NLRP3 full-length ORF (NP_004886.3, 1 a.a. - 1036 a.a.) recombinant protein with GST-tag at N-terminal.

Sequence:

MKMASTRCKLARYLEDLEDVDLKKFKMHLEDYPPQKG
CIPLPRGQTEKADHVDLATLMIDFNNGEEKAWAMAVWI
FAAINRRDLYEKAKRDEPKWGSNARVSNPTVICQED
SIEEEWMGLLEYSRISICKMKKDYRKKYRKYVRSRFQ
CIEDRNARLGESVSLNKRYTRLRLIKEHRSQQEREQEL
LAIGKTKCESPVSPIKMELLDPDDEHSEPVHTVVVFQ
GAAGIGKTLARKMMLDWASGTYQDRFDYLFYIHCRE
VSLVTQRSLGDLIMSCCPDPNPIHKIVRKPSRILFMD
GFDELQGAFFDEHIGPLCTDWQKAERGDILLSSLIRKKL
LPEASLLITRTPVALEKLQHLDDHPRHVEILGFSEAKRK
EYFFKYFSDEAQAARAAFSLIQENEVLFMCFIPLVCWIV
CTGLKQQMESGKSLAQTSKTTTAVYVFFLSSLLQPRG
GSQEHLCAHLWGLCSLAADGIWNQKILFEESDLRNH
GLQKADVSAFLRMNLFQKEVDCEKFYSFIHMTFQEFF
AAMYLLLEEEKEGRTNVPGRSLKLPDRDVTVLENYG
KFEKGYLIFVVRFLFGLVNQERTSYLEKKLSCKISQQIR
LELLKWIEVKAKAKKLQIQPSQLELFYCLYEMQEEDFV
QRAMDYFPKIEINLSTRMDHMVSSFCIENCHRVESLSL
GFLHNMPKEEEEEKEGRHLDMVQCVPSSSHAACS
HGLVNSHLTSSFCRGLFSVLSTSQSLTELDLSDNSLGD
PGMRVLCETLQHPGCNIRRLWLGRGCLSHECCFDISL
VLSSNQKLVELDLSDNALGDFGIRLLCVGLKHLLCNLK
KLWLVSCLTSACCQLASVLSLTSLSLTRYVGENAL
GDSGVAILCEKAKNPQCNLQKGLVNSGLTSVCCSAL
SSVLSLNQNLTHLYLRGNTLGDKGIKLLCEGLLHPDCK
LQVLELDNCLNLTSHCCWDLSTLLTSSQSLRKLKSLGNN
DLGDLGVMMFCEVLKQQSCLLQNLGLSEMYFNJETK
SALETLQEEKPELTVVFEPSW

Host: Wheat Germ (in vitro)

Theoretical MW (kDa): 144.6

Interspecies Antigen Sequence: Mouse (82); Rat (81)

Applications: AP, Array, ELISA, WB-Re
(See our web site product page for detailed applications

information)

Protocols: See our web site at
<http://www.abnova.com/support/protocols.asp> or product
page for detailed protocols

Preparation Method: [in vitro wheat germ expression system](#)

Purification: Glutathione Sepharose 4 Fast Flow

Storage Buffer: 50 mM Tris-HCl, 10 mM reduced
Glutathione, pH=8.0 in the elution buffer.

Storage Instruction: Store at -80°C. Aliquot to avoid
repeated freezing and thawing.

Entrez GeneID: 114548

Gene Symbol: NLRP3

Gene Alias: AGTAVPRL, AII, AII/AVP, AVP, C1orf7,
CIAS1, CLR1.1, FCAS, FCU, FLJ95925, MWS, NALP3,
PYPAF1

Gene Summary: This gene encodes a pyrin-like protein containing a pyrin domain, a nucleotide-binding site (NBS) domain, and a leucine-rich repeat (LRR) motif. This protein interacts with the apoptosis-associated speck-like protein PYCARD/ASC, which contains a caspase recruitment domain, and is a member of the NALP3 inflammasome complex. This complex functions as an upstream activator of NF-kappaB signaling, and it plays a role in the regulation of inflammation, the immune response, and apoptosis. Mutations in this gene are associated with familial cold autoinflammatory syndrome (FCAS), Muckle-Wells syndrome (MWS), chronic infantile neurological cutaneous and articular (CINCA) syndrome, and neonatal-onset multisystem inflammatory disease (NOMID). Multiple alternatively spliced transcript variants encoding distinct isoforms have been identified for this gene. Alternative 5' UTR structures are suggested by available data; however, insufficient evidence is available to determine if all of the represented 5' UTR splice patterns are biologically valid. [provided by RefSeq]

References:

1. PARP-1 regulates inflammasome activity by poly-ADP-

Datasheet

ribosylation of NLRP3 and interaction with TXNIP in primary macrophages. Ling-Ya Chiu, Duen-Yi Huang, Wan-Wan Lin. *Cell Mol Life Sci.* 2022 Jan 30;79(2):108. doi: 10.1007/s00018-022-04138-z.

2. Molecular Basis of Acute Cystitis Reveals

Susceptibility Genes and Immunotherapeutic Targets. Ambite I, Puthia M, Nagy K, Cafaro C, Nadeem A, Butler DS, Rydstrom G, Filenko NA, Wullt B, Miethke T, Svanborg C. *PLoS Pathog.* 2016 Oct 12;12(10):e1005848.

3. NLRP3 activation and mitosis are mutually exclusive events coordinated by NEK7, a new inflammasome component. Shi H, Wang Y, Li X, Zhan X, Tang M, Fina M, Su L, Pratt D, Bu CH, Hildebrand S, Lyon S, Scott L, Quan J, Sun Q, Russell J, Arnett S, Jurek P, Chen D, Kravchenko VV, Mathison JC, Moresco EM, Monson NL, Ulevitch RJ, Beutler B. *Nat Immunol.* 2015 Dec 7. [Epub ahead of print]