

Product datasheet for **MR221045**

Nlrp1a (NM_001004142) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Nlrp1a (NM_001004142) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Nlrp1a
Synonyms:	CARD7; DEFCAP; Gm14; Gm15; NAC; Nalp1; Nalp1a; Nlrp1; PP1044
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR221045 representing NM_001004142 Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTAAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGCATCGCC

ATGGAAGAATCTCAGTCCAAGCAGGAAAGTAGCACAAAAGTGGCTCAGCATGAAGGTCAAGAGGATGTGG
 ACCCAACCTTCAAACAAAGAACTTATGGAGGTGGAGCTAATGAAGCACAGAGTGCAGCTAGAGAGGAA
 CTTGAAGCTAAGAACCTTCCAGGAGCACGTACGAAGCAAGTAAAAGAGGCTCTTACCCTCTTCTAACA
 TGGTCATCAAAAAGCAAGAATCTGTTCCAAAATTTACAAAACCTACTACTCTTTAAAAAATTGTGCCAAA
 GAGGCTCAGAAAACCTTGGTCAGGGAAGCTGGTATCCATGTGTACCAGAAGAAGAAGCACATATGATTGA
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 GCTGGGATTGGGAAGTCAACACTGGCCAGACTTGTGAAGAGAGCCTGGAAGGAAGGCAAGCTTTACAGGA
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ATAGAAAAGCTCTTTTCCTGCAGCCTTCATGGAAAGACAAAGTTGAAACTACTATGGCACATCCTAGGGA
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ACGCGTACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
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Protein Sequence: >MR221045 representing NM_001004142
 Red=Cloning site Green=Tags(s)

MEESQSKQESSTKVAQHEGQEDVPTFKTKKLMVELMKHRVQLERNLKLRTFPGARTKQVKEALYPLLT
 WSSKSKNLFQNTKLLFKKLCQRGSENLVRESWYPCVPEEEAHMIDIQDLFGPNLGTQKKPQLVIEGA
 AGIGKSTLARLVKRAWKEGKLYRNDFFHVFFFSCRELAQYEQLSLAELIVQGQEVPTAPIRQILSHPEKL
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 DLGDGGVKMLCEGLRNPACNLSILWLDQASLSDQVIAELRTLAKNPKLLISSTWKPHVMVPTMNMDEE
 VGDSQALLKQQRQSGDKHMEPLGTEDEFWGPTGPVTTVEVDRERNLYRVQLPMAGSYHCPSTGLHFVVT
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 GMVLETPARVEQHYAVLENPSFSPMGILLRMIPAVGHFIPITSTTLIYYHLYLEDVTFHLYLPNDCSIR
 KAIDDEEMKFQFVRINKPPVDALYLSRYIVSSSKLVEIIPKELELCYRSPGESQLFSEIDIGHMDEI
 KLQIKDKRHMNLKWEALLKPGDLRPALPKIATAPKDAPSLLHFMQHQREQLVARVTSVDPDLLDKLHGLVL
 SEDSYEVVRSETTNQDKMRKLFSLSRSSWDCKDQFYQALKETHPHLVMDILEKLGGSVSKS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/ja1438_e09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

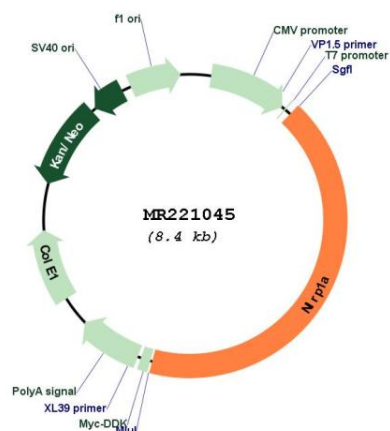


ACCN: NM_001004142

ORF Size: 3546 bp

OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	1. Centrifuge at 5,000xg for 5min. 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. 3. Close the tube and incubate for 10 minutes at room temperature. 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_001004142.2 , NP_001004142.2
RefSeq Size:	4806 bp
RefSeq ORF:	3549 bp
Locus ID:	195046
UniProt ID:	Q2LKU9
Cytogenetics:	11 43.21 cM
MW:	134.8 kDa
Gene Summary:	As a potential sensor component of the NLRP1 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 Nlrp1b, CASP1, and possibly PYCARD. Recruitment of proCASP1 to the inflammasome promotes its activation and CASP1-catalyzed IL1B and IL18 maturation and secretion in the extracellular milieu. Activation of NLRP1 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 (By similarity) (PubMed:23219391). When activated in the bone marrow, induces the pyroptosis of hematopoietic stem cells and progenitor cells of both myeloid and lymphoid lineages, hence allowing the removal of damaged cells, and the release of IL1B, which induces granulopoiesis (PubMed:23219391). Binds ATP (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR221045