

## Product datasheet for MR221409

### Nlrp12 (NM\_001033431) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Nlrp12 (NM\_001033431) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Nlrp12  
**Synonyms:** Nalp12; PYPAF7  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >MR221409 representing NM\_001033431  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCCGATCGCC

ATGTTGCCGTCTACAGCCAGGGATGGCCTCTATCGACTGTCTACCTACCTGGAAGAACTCGAGGCTGGGG  
 AACTGAAGAAATTCAAATTATTCCTGGGGATTGCAGAGGACCTGAGCCAGGACAAAATCCCTGGGGACG  
 AATGGAGAAGGCTGGTCTCTGGAAATGGCTCAGCTGATGGTGGCCACATGGGGACAAGGGAGGCTTGG  
 CTTCTGGCTCTCAGCACCTTTAGAGGATTCACAGGAAGGACCTGTGGGAGCGAGGACAGGGAGAAGACC  
 TGGTGAGGGTCACTCAAATAATGGTCTATGCCTTTTGGAGCCAATCAGCGTGCCTTTGGATGTCTC  
 TCCAATGCTCCAAGAAAAGATCTACAGACAACCTACAAAGACTATGTCGAAGGAAATCCAGCTAATG  
 GAAGACCGCAATGCACGATTAGGCGAATGTGTGAACCTGAGCAATCGTTACACTCGGCTTCTCCTAGTAA  
 AAGAACACTCAAATCCTATCTGGACACAGCAGAAATTTGTAGATGTAGAGTGGGAACGCTCCAGAACCAG  
 GCGTCACCAGACTAGTCTATCCAAATGGAGACCCTCTTTGAGCCAGACGAAGAACGCCCCGAGCCACCA  
 CACACAGTGGTATTACAAGGGGCAGCGGGATGGGGAAGTCCATGCTGGCCACAAAAGTATGTTGGACT  
 GGGCCGATGGGAGGCTCTCCAAGGCCGTTTGTATGTCTTATATCAGCTGCAGGGAGTTGAATAG  
 AAGCCACACCCAGTGCAGTGTACAAGACCTCATCTCCAGCTGCTGGCCGAGCGTGGTATATCCCTCGAA  
 GACCTCATGCAGGCTCCTGACCGTCTCCTATTCATCATTGATGGCTTCGATAAACTCCATCCTTTCTTCC  
 ATGATGCTCAGGGTCCCTGGTGCCTCTGCTGGGAGGAGAAACAACCTACTGAAAGTCTCCTCGGAAGTCT  
 GATTCGGAGGTTGCTTCTGCCCAAGTCTCTGCTCATCACCACACGACCCTGTGCACTGGAGAAGCTG  
 CACGGCTTGCTAGAACACCCAGGCACGTGGAGATCCTGGGCTTCTCCGAGGAAGCTAGGAAGGAATATT  
 TCTACAGATATTTCCACAACACTGGACAAGCAAGCCGGGTGTTAAGCTTCTTGATGGACTATGAGCCCT  
 CTTTACCATGTGTTTGTCCCATGGTGTCTGGGTGGTCTGCACCTGCCTAAAGCAGCAGCTGGAAAGT  
 GGGGAGCTTTTAAGACAAACACCTAGGACCACCACAGCTGTTTATGTTCTACCTTCTGAGCCTGATGC  
 AGCCCAAGCCAGGACTCCAACCTCAAAGTCCCAGCCAACCAGAGAGGCTGGTCTCTGCGCTGCAGA  
 GGGCCTCTGGAATCAGAAGATTCTATTTGATGAACAGGATCTTGGGAAACACGGCTAGATGGAGCAGAT



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GTGTCCACTTTCCTCAACGTGAACATATTCAGAAAGGGTATCAAATGTGAGAAATCTACAGCTTCATCC  
 ACCTGAGTTTCCAGGAATTCTTCGCAGCCATGACTGTGCACTGAATGGCAGAGAGGCGGTGAGGAGAGC  
 GCTGGCTGAGTATGGTTTTTCGAAAGGAATTCTTGGCCCTCACGGTCCACTTTCTGTTTGGCCTCCTC  
 AACGAAGAGATGAGATGCTACCTTGAGAGGAATCTCGGCTGGAGCATCTCCCTCAGGTGAAGGAGGAAG  
 TGTTGGCATGGATCCAAAACAAGGCTGGGAGTGAAGGCTCCACCTGCAGCATGGCTCCCTGGAGCTACT  
 CAGCTGCTTGTATGAGGTCCAGGAGGAGGACTTCATCCAGCAGGCCCTGAGCCACTTTCAAGTGGTTGTA  
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 TGCAAGGGCTAAGGCACCCTGTCTGCAGGCTGGTACCCTGTGGCTGAAGATCTGCCACCTTGGACAAG  
 CTTCTCGAAGATCTGGCCTCTACTCTCAAAATGAACCAGAGCCTGCTGGAGCTGGACCTGGGTCTGAA  
 TGATCTTGGAGATTCTGGGGTGTCTGCTGTGTGAAGGCCTCAGTATCCAGATTGCAAACTCCAGACC  
 CTTCTGGTTGGGCATTTGCCGACTGGGCTCAGTCGCGTGTGTGGGGATCGCCAGTGTGCTCCAGGTCAACA  
 CATGCCTCCAAGAGCTGGACCTGAGCTTCAATGACTTGGGAGACAGGGGCTGCAGCTGTGGGGGAAGG  
 CCTGAGGCACCAGACCTGCAGACTCCAGAAGCTGTGGCTGGACAACCTGCCGACTCACCTCCAAGCATGT  
 GAGGACCTTTCTCTATCTGGGAATCAGCCAGACCCTGCATGAGCTTTATTTGACCAATAATGCTCTGG  
 GGGACACAGGTGTCTGTCTGTGTGCAAGAGGCTGAGGCATCCAGGCTGCAAGCTTCGAGTCTGTGGCT  
 GTTTGGGATGGACTGAATAAAAAGACTCACAGGAGGATGGCAGCACTTCGAGTCAAAAACCGTACCTG  
 ATATTGGGTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR221409 representing NM\_001033431

Red=Cloning site Green=Tags(s)

MLPSTARGLYRLSTYLEELEAGELKFKFLGLGIAEDLSQDKIPWGRMEKAGPLEMAQLMVAHMGTTREAW  
 LLALSTFQRIHRKDLWERGQGEDLVRVTPNGLCLFESQSACPLDVSPNAPRKDLQTTYKYVRRKFQLM  
 EDNRNARLGEVNL SNRYRLLLVKEHSNPIWTQQKFVDVEWERSRTRRHQTSPIQMETLFEPDEERPEPP  
 HTVVLLQGAAGMGKSM LAHKVMLDWADGRLFQGRFDYVFI SCRELNRSHQCSVQDLISSCWPERGISLE  
 DLMQAPDRLLFIIDGFDKLP SFHDAQGPWCLCWE EKQPTVLLGSLIRRLLLPQVSLITTRPCALEKL  
 HGLLEHPRHVEILGFSEEARKEYFYRYFHNTGQASRVLSFLMDYEPLFTMCFVPMVSWVCTCLKQQLS  
 GELLRQTPRTTAVYMFYLLSLMQPKPGTPTFKVPANQRGLVSLAAEGLWNQKILFDEQDLGKHGLDGAD  
 VSTFLNVNIFQKGIKCEKFYSFIHLSFQEFAAMYCALNGREAVRRALAEYGF SERNFLALTVHFLFGLL  
 NEEMRCYLERNLGSISPQVKEEVLAWIQNKAGSEGSTLQHSLELLSCLYEVQEEDFIQQALSHFQVVV  
 VRSISTKMEHMVCSFCARYCRSTEVLHLHGSAYSTGMEDDPPEPSGVQTQSTYLQERNMLPDVYSAYLSA  
 AVCTNSNLIELALYRNALGSQGVRLLCQGLRHASCKLQNLRLKRCQISGSACQDLAAAVIANRNLIRLDL  
 SDNSIGVPGLELLCEGLQHPRCRLQMIQLRKCLLEAAAGRSLASVLSNNSYLVLDL TGNPLEDSGLKLL  
 CQGLRHPVCRLRTLWLKICHLGQASCELDASTLKMNSLLELDLGLNDLGD SGVLLLCEGLSHPDCKLQT  
 LRLGICRLGSVACVGIASV LQVNTCLQELDL SFNDL GDRGLQLLGEGLRHQTCRLQKLWLDNCGLTSKAC  
 EDLSSILGISQTLHEL YLTNNALGDTGVCLLCKRLRHPGCKLRVLLWFGMDLNKKTTHRRMAALRVTKPYL  
 DIGC

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/ja1484\\_a04.zip](https://cdn.origene.com/chromatograms/ja1484_a04.zip)

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM\_001033431

ORF Size: 3162 bp

OTI Disclaimer:

Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in *E. coli* are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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).

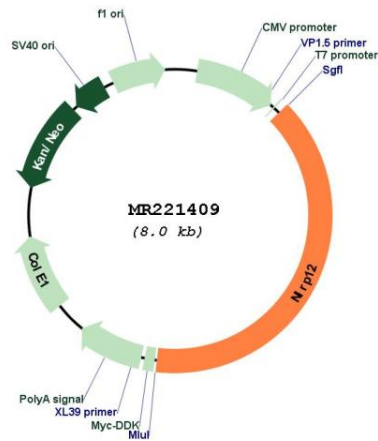
Reconstitution Method:

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.

**RefSeq:** [NM\\_001033431.1](#), [NP\\_001028603.1](#)  
**RefSeq Size:** 4329 bp  
**RefSeq ORF:** 3165 bp  
**Locus ID:** 378425  
**UniProt ID:** [E9Q5R7](#)  
**Cytogenetics:** 7 A1  
**MW:** 119.8 kDa

**Gene Summary:** Plays an essential role as a potent mitigator of inflammation (PubMed:26521018, PubMed:30559449). Primarily expressed in dendritic cells and macrophages, inhibits both canonical and non-canonical NF-kappa-B and ERK activation pathways (PubMed:30559449). Functions as a negative regulator of NOD2 by targeting it to degradation via the proteasome pathway (PubMed:30559449). In turn, promotes bacterial tolerance (PubMed:30559449). Inhibits also the DDX58-mediated immune signaling against RNA viruses by reducing the E3 ubiquitin ligase TRIM25-mediated 'Lys-63'-linked DDX58 activation but enhancing the E3 ubiquitin ligase RNF125-mediated 'Lys-48'-linked DDX58 degradation (By similarity). Acts also as a negative regulator of inflammatory response to mitigate obesity and obesity-associated diseases in adipose tissue (PubMed:30212649).[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MR221409