

Product datasheet for MR227430

Nlrc4 (NM_001033367) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Nlrc4 (NM_001033367) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Nlrc4
Synonyms: 9530011P19Rik; Card12; CLAN; CLAN1; CLANA; CLANB; CLANC; CLAND; IPAF
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >MR227430 representing NM_001033367
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAACCTTATAAGGAACAACAGACGAGCCCTTATCAAAGGATGGGCTTAACAGTTACCAAGCAAATCT
GCGATGACCTCTTGCATTGAACGTTCTCAACAATCAAGAAGCTAATGTCATTTACTGTGAGCCCTTGG
GCAGGAAGCCGCCGAAAGATCATCCATATGACTATGCAGAAGGGCTCAGCGGCTGCAACCTCTTCTT
AAGAGTCTTGAAAAGTGGACTATTTGTGTATCAGGACTTAACGGACAAAATCTTCTTATCAGGTCA
CAGAAGAAGACCTGAATGTTTTGGCCAGAATTTAAAGGACTTGTACAACAGCCCTGCTTTTCTGAACCT
CTACCCCTGGGTGAAGATATCGACATAATTTTTAATCTGGAGAAAACCTTACAGAACCTATCATGTGG
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CCTGCCTGATTGAAGCGAGTCTGGCAAAGGGAAGTCCACCCTGCTGCAGAGAATCGCTATGCTCTGGG
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GGACTATTCGAAACACTGTACGATCAGCTCCTGAACATACCCGACTTCATCAGCAAGCCGACCTCAAGG
CTCTGTGCTGAAGCTACACAAGGAGTCTCTTCTTCTCGATGGTTACAATGAATCCATCCCCAGAA
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CCTAGAAGGTGTGTTGCGCCACAAATTTGATTTGAACCCGAGCATGGGTCCAGCATGAACGAGGACGTC
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CTCCTCTACACGTGTGGGTCGTCCACAGAAGCAACCAGGGCGGTCATGAGGCACCTTGAATGGTTTATC
 AGCACGGCAGCCTACAAGGACTTTCAGTCACCAAGAGGCCTCTCTGGAGGCAGGAATCAATCCAGAGTCT
 GAGAAATACCACTGAGCAAGATGTTCTGAAAGCCATCAATGTAATTCCTTCGTAGAGTGTGGCATCAAT
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 TATACATCAACTCAGAGAACATCCCTGACTATTTATTTGACTTCTTTGAATACTTGCCATATTGTGCAAG
 CGCATTGGACTTCGTGAAGTTGGATTTCTATGAAAGAGCTACAGAGTACAGGACAAAGGCAAGAGAAT
 GTCCTGGAGTTCACACAGAAGGCCCTCAGAAACCTACATTCCTCCAGGGCTGTGTCTTTGTTCTTCA
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 GCTGGAAGACTCAGCTCAGTCTCAGAACCTGCAAGAACATGCATACCCTCATGGTGAAGCCAGTCCCC
 TCACCACGGATGACGAACAGTACATCACATCTGTGACAGGCCCTCAGAACTTAAGTATTCACCGCTTGA
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 AAAGTTGGATTGAAAAGCTGGAGACTCAGAGACGAAGAGATTAAGTTTGGTGAATTTCTGGAGATGA
 ATCCTCTGAGAGACTTGACAGCTTGGATTTAGCGGGGCACTGTGTGAGCAGTGCAGGATGGCTTACTT
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 GCAGCACTGGTGAGGAACTTAGTCAAGTGTATCCAAGTTAACTCTTCTGCAAGAGGTAAGACTCACGG
 GCTGGGAGTTTGTGACTATGATATTAGCGCTATTAAGGCACCTTAACTAGTGACTGCT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR227430 representing NM_001033367
 Red=Cloning site Green=Tags(s)

MNFIRNNRRALIQRMLTVTKQICDDL FALNVLNNQEANVIYCEPLEQEARKIIHMTMQKGSAAACNLF
 KSLENWDYFVYQDLTGQNL SYQVTEEDLNVL AQNLKDL YNSPAFLNFYPLGEDIDIIFNLEKTFTEPIMW
 KKDHRHRHVEQL TLGSLLEALKSPCL IEGESGKSTLLQRIAMLWASGGCRALKGFRLVFFIHLRSARG
 GLFETLYDQLLNIPDFISKPTFKALLKLHKEVFLLDGYNEFHPQNCPEIEALIKENHRFKNMVIVTTT
 TECLRHIRHV GALTAEVGDMTEDSAKDL IEAVL VPDQVERLWAQIQESRCLRNL MKTPLFVVITCAIQMG
 RQEFQAHTQTMLFQTFYDLLIQKNSHRYRGGASGDFARS LDYCGDLA LEGVFAHKFD FEPEHGSSMNEDV
 LVTIGLLCKYTAQR LKPTYKFFHKSFQEYTAGRRL SLLTSKEPEEVSKGNSYLNKMVSI SDITSLYGNL
 LLYTCGSSTEATRAVMRHLAMVYQHGS LQGLSVTKRPLWRQESI QSLRNTTEQDVLKAINVNSFVECCGIN
 LFSESMKSDLSQEF EAFQGKSLYINSENI PDYLFDFEYLPNCASALDFVKLDFYERATESQDKAEEN
 VPGVHTEGPSEYI PPRAVSLFFNWKQEFKTEVTLR DINKLNKQDIKYL GKIFSSATNLRLHIKRAAM
 AGRLSSVLR TCKNMHTLMVEASPLTTDDEQYITSVTGLQNL SIHRLHTQQLPGGLIDSLGNLKNLERLIL
 DDIRMNEEDAKNLA EGLRSLKMRLLHL THLSDIGEGMDYIVKSLSEESCDLQEMKLVACCLTANSVKVL
 AQNLHNL IKLSILDISENYLEKDGNEALQELIGRLGVLGELTTLMLPWCWDVHTSLPKLLKQLEGTPLA
 KLGLKNWRLRDEEIKSLGEFLEMNPLRDLQQLDLAGHCVSSDGWL YFMNVFENLKQLVFFDFSTEEFLPD
 AALVRKLSQVLSKL TLLQEVKLTGW EFDDYDISAIKGTFLVTA

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mm9035_c04.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:



ACCN: NM_001033367

ORF Size: 3072 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.

RefSeq: [NM_001033367.3](#), [NP_001028539.1](#)

RefSeq Size: 3838 bp

RefSeq ORF: 3075 bp

Locus ID: 268973

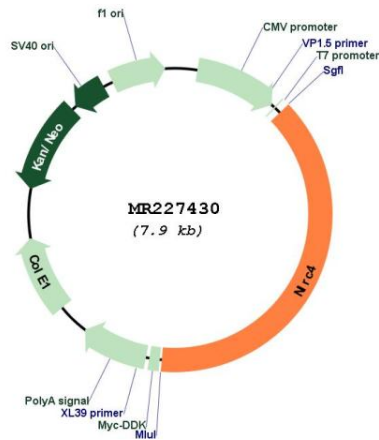
UniProt ID: [Q3UP24](#)

Cytogenetics: 17 E2

MW: 117.2 kDa

Gene Summary: Key component of inflammasomes that indirectly senses specific proteins from pathogenic bacteria and fungi and responds by assembling an inflammasome complex that promotes caspase-1 activation, cytokine production and macrophage pyroptosis. The NLRC4 inflammasome is activated as part of the innate immune response to a range of intracellular bacteria. It senses pathogenic proteins of the type III secretion system (T3SS) and type IV secretion system (T4SS) such as flagellin and PrgJ-like rod proteins via the Naip proteins (Naip1, Naip2 or Naip5): specific Naip proteins recognize and bind pathogenic proteins, driving assembly and activation of the NLRC4 inflammasome. The NLRC4 inflammasome senses Gram-negative bacteria such as *L.pneumophila* and *P.aeruginosa*, enteric pathogens *S.typhimurium* (Salmonella) and *S.flexneri* and fungal pathogen *C.albicans*. In intestine, the NLRC4 inflammasome is able to discriminate between commensal and pathogenic bacteria and specifically drives production of interleukin-1 beta (IL1B) in response to infection by Salmonella or *P.aeruginosa*. In case of *L.pneumophila* infection the inflammasome acts by activating caspase-7.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR227430