

Product datasheet for **MC223865**

Nlrp1a (NM_001004142) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Nlrp1a (NM_001004142) Mouse Untagged Clone
Tag: Tag Free
Symbol: Nlrp1a
Synonyms: CARD7; DEFCAP; Gm14; Gm15; NAC; Nalp1; Nalp1a; Nlrp1; PP1044
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >MC223865 representing NM_001004142
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGAAGAATCTCAGTCCAAGCAGGAAAGTAGCACAAAAGTGGCTCAGCATGAAGGTCAAGAGGATGTGG
 ACCCAACCTTCAAACAAGAACTTATGGAGGTGGAGCTAATGAAGCACAGAGTGCAGCTAGAGAGGAA
 CTTGAAGTAAGAACCTTCCAGGAGCAGTACGAAGCAAGTAAAAGAGGCTCTTACCCTTTCTAACA
 TGGTCATCAAAAAGCAAGAACTGTTCCAAAATTCACAAAACACTACTCTTTAAAAAATTGTGCCAAA
 GAGGCTCAGAAAACCTGGTCAGGAAAGCTGGTATCCATGTGTACCAGAAGAAGAAGCACATATGATTGA
 CATCCAAGATTTATTTGGCCAAACTTAGTACTCAGAAAAAGCCTCAATTAGTCATAATAGAAGGAGCT
 GCTGGGATTGGGAAGTCAACACTGGCCAGACTTGTGAAGAGAGCCTGGAAGGAAGGCAAGCTTTACAGGA
 ATGACTTCCATCATGTCTTCTTTCAGCTGCAGAGAGCTGGCCAGTATGAGCAGCTGAGTCTGGCTGA
 GCTCATAGTACAAGGCCAGGAAGTGCCACAGCTCCCATTAGGCAGATCCTGTCTCACCCGTGAGAAGTTG
 CTCTTCATTCTGGATGGCATAGATGAGCCAGCATGGGTCTTAGCAGACCAGAATCCTGAGTTATGTCTTC
 ACTGGAGTCAAACCCAGCCTGTGCACACTGCTGGGCAGTTTACTTGGGAAATCCATCCTTCTGGGGC
 TTCCTTCTTGCTACAACCTCGCACACAGCTCTACAGAAATTCATTCCTTCCCTGGAGCAGCCATGTCAA
 GTGGAAGTCTTAGGATCACTTTGTTTGAACGGAAAAACTATTTCTACAATATTTTGGGAAGAAAAAAG
 GTGGAGTTACTACTTTTACATTAGTTAAATCAAACCTCAGCGCTCCTGACTCTGTGTGAAGTTCCTGGGT
 GTGCTGGTTGGTCTGCACCTTGCTGAAAAAGCAGATGGAGCAGGGTGGAGAGCTCTCACTGACCTCACAG
 ACCACCACAGCACTCTGCCTGAAATACCTTCCCTGACGATCCCAGGGCAGCACATGAGGACCCAGCTCA
 GAGACCTCTGCTCACTGGCTGCTGAGGGGTCTGCCAAAGAAGGACCCTGTTCAAGTAAAGCGATCTCTG
 TAAGCAAGGGTTAGATGAGCATGCCATTGCCAGTTTCTGAAGATTGGTGTCTTCAAAGCAGGCCAGC
 TCTCTGAGCTACAGCTTTGCCACTTGTGTCTCAGGAGTTCTTGCAGCAATGTCTACATCTTGATG
 ATAGTGAGGAAAGACATGCTGATATGAAAAATGACAGAATTGTGGAAACACTGGTAGAAAGGTATGGAAG
 ACAAACCTGTTTGGAGCACCCACTGTGCGTTTTTATTTGGTCTTTTGGAGTAAAGAGGAATTGAAAAA
 ATAGAAAAGCTCTTTCTGCAGCCTTCATGGAAGACAAAGTTGAAACTACTATGGCACATCCTAGGGA



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AATCCCAACCCCATCAACCACCTTGCCTGGGTTTGTCTCCACTGTCTGTATGAAAATCAGGATATGGAGCT
 CCTGACACACGTGATGCATGATCTGCAAGGAACAATAGTGCCTGGACCAGATGATTTGGCACACACAGTG
 TTGACAGACAAACGTGAAGCACCTGGTGATACAGACAGACATGGACCTCATGGTGGTTACTTTCTGCATTA
 AGTTCTGCTGTACAGTGAAGGAGTCTTACAGTGAACAGGAAGGTACAGCAGGGACATAAGTTTACGGCCCC
 TGGGATGGTTCTGTACAGATGGACCCCAATCACTGATGCCAGCTGGAAGATTTTCTTCTCCAATCTTAAG
 TTAGCCAGAAACCTGGAGGAGTTGGACCTAAGTGGAAATCCACTGAGCTACTATGCAGTACACAGTCTTT
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 ATACTGCTCACTTCTGGCCTCAGTACTCAGTGCCCGCTCCAGCCTGACTGAGCTAGACCTGCAGCTGAAT
 GACCTGGGTGATGGTGGTGTGAAGATGTTGTGTGAGGGGCTCAGGAATCCTGCCTGCAATCTCAGCATCC
 TGTGGCTGGACCAGGCATCTCTCAGTGACCAAGTGATTGCAGAGCTCAGAACTCTGGAGGCAAAGAATCC
 AAAGCTGCTCATCTCCAGCACATGGAAGCCACATGTGATGGTCCCTACGATGAACATGGATAAAGAAGAA
 GTGGGTGATAGCCAGGCCCTACTGAAGCAGCAGAGACAGCAGTCAAGGAGACAAACACATGGAACCTCTGG
 GGACTGAAGATGAGTTCTGGGCCCTACAGGACCTGTGACTACTGAGGTGGTTGACAGAGAGAGGAACT
 GTACCGAGTTCAGTTACCCATGGCTGGTCTCTACCAGTGTCCAGTACAGGACTCCACTTTGTGGTGACA
 AGGGCAGTGACAATCGAGATTGAATTCTGTGCCTGGAGCCAATATCTCGACAAGACTCCCTTGACAGAGA
 GTCACATGGTGGTTGGACCTCTGTTGACATCAAGGCTGAGCAAGGAGCTGTGACTGCAGTGTACCTCCC
 TCATTTTGTGGCCCTCCAAGAGGGAATCGTGGACAGCTCCTTGTTCATGTTGCCCACTTTCAAGAACAT
 GGGATGGTCTAGAAAACCCAGCAAGGGTGAACAGCATTACGCAGTACTGAAAACCCAAGCTTCTCCC
 CAATGGGATTTCTACTGAGAATGATTCGGCTGTCCGGACACTTCAATCCCATCACTTCCACCACACTGAT
 CTAATACACCTCTATCTTGAAGACGTCACCTTTCACCTTTACCTGGTCCCAATGACTGCAGTATTCGA
 AAGGCCATTGATGATGAAGAAATGAAGTTTCAGTTTGTGCGCATAAACAAGCCACCCCAAGTACAGCCTC
 TTTATCTTGGTCCCGCTATATCGTGTCTTCTCCTCAAATGGTGGAAATATCCCAAAGGAACTAGAGCT
 GTGCTACCGAAGCCCTGGGGAATCCAGCTCTTCTCTGAGATCGACATTGGGCACATGGATTGAGATT
 AAGCTGCAAATCAAAGACAAGAGGCACATGAATCTCAAATGGGAGGCCTTGTGAAAACAGGGGATCTCA
 GACCTGCACTGCCAAGATTGCTACAGCCCCAAAGATGCTCCTTCTTGTGCACTTCTGACAGCA
 TCGGGAGCAGCTGGTGGCCCGAGTGACATCTGTAGATCCTCTCTTGGACAAGCTGCATGGTCTGGTGTG
 AGTGAAGATTCTATGAAGTAGTGGGTCTGAGACCACAAACCAAGACAAGATGAGGAAGCTCTTACAGCC
 TCAGCCGGTCTGGAGCTGGGATTGCAAAGACCAATTCTACCAAGCTCTGAAGGAGACCCATCTCACCT
 GGTCATGGATATACTTGAGAAGTTGGGTGGGTCTCTGTGAAATCCTGA

ACGGTACGGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM_001004142
- Insert Size:** 3549 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- 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_001004142.2](#), [NP_001004142.2](#)

RefSeq Size: 4806 bp

RefSeq ORF: 3549 bp

Locus ID: 195046

UniProt ID: [Q2LKU9](#)

Cytogenetics: 11 43.21 cM

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]