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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
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

Fully Sequenced ORF:

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>MC223865 representing NM_001004142
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAAGAATCTCAGTCCAAGCAGGAAAGTAGCACAAAAGTGGCTCAGCATGAAGGTCAAGAGGATGTGG
ACCCAACCTTCAAAACAAAGAAACTTATGGAGGTGGAGCTAATGAAGCACAGAGTGCAGCTAGAGAGGAA
CTTGAAGCTAAGAACCTTTCCAGGAGCACGTACGAAGCAAGTAAAAGAGGCTCTTTACCCTCTTCTAACA
TGGTCATCAAAAAGCAAGAATCTGTTCCAAAATTTCACAAAACTACTACTCTTTAAAAAATTGTGCCAAA
GAGGCTCAGAAAACTTGGTCAGGGAAAGCTGGTATCCATGTGTACCAGAAGAAGAAGCACATATGATTGA
CATCCAAGATTTATTTGGCCCAAACTTAGGTACTCAGAAAAAGCCTCAATTAGTCATAATAGAAGGAGCT
GCTGGGATTGGGAAGTCAACACTGGCCAGACTTGTGAAGAGAGCCTGGAAGGAAGGCAAGCTTTACAGGA
ATGACTTCCATCATGTCTTCTTCTTCAGCTGCAGAGAGCTGGCCCAGTATGAGCAGCTGAGTCTGGCTGA
GCTCATAGTACAAGGCCAGGAAGTGCCCACAGCTCCCATTAGGCAGATCCTGTCTCACCCTGAGAAGTTG
CTCTTCATTCTGGATGGCATAGATGAGCCAGCATGGGTCTTAGCAGACCAGAATCCTGAGTTATGTCTTC
ACTGGAGTCAAACCCAGCCTGTGCACACTCTGCTGGGCAGTTTACTTGGGAAATCCATCCTTCCTGGGGC
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ACAAAACCTGTTTGAGGCACCCACTGTGCGTTTTTTATTTGGTCTTTTGAGTAAAGAGGAATTGAAAAAA
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ATAGAAAAGCTCTTTTCCTGCAGCCTTCATGGAAAGACAAAGTTGAAACTACTATGGCACATCCTAGGGA
AATCCCAACCCCATCAACCACCTTGCCTGGGTTTGCTCCACTGTCTGTATGAAAATCAGGATATGGAGCT
CCTGACACACGTGATGCATGATCTGCAAGGAACAATAGTGCCTGGACCAGATGATTTGGCACACACAGTG
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TTAGCCAGAAACCTGGAGGAGTTGGACCTAAGTGGAAATCCACTGAGCTACTATGCAGTACACAGTCTTT
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GACCTGGGTGATGGTGGTGTGAAGATGTTGTGTGAGGGGCTCAGGAATCCTGCCTGCAATCTCAGCATCC
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GTCACATGGTGGTTGGACCTCTGTTTGACATCAAGGCTGAGCAAGGAGCTGTGACTGCAGTGTACCTCCC
TCATTTTGTGGCCCTCCAAGAGGGAATCGTGGACAGCTCCTTGTTCCATGTTGCCCACTTTCAAGAACAT
GGGATGGTCCTAGAAACACCAGCAAGGGTGGAACAGCATTACGCAGTACTGGAAAACCCAAGCTTCTCCC
CAATGGGGATTCTACTGAGAATGATTCCGGCTGTCGGACACTTCATCCCCATCACTTCCACCACACTGAT
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AAGGCCATTGATGATGAAGAAATGAAGTTTCAGTTTGTGCGCATAAACAAGCCACCCCCAGTAGACGCTC
TTTATCTTGGTTCCCGCTATATCGTGTCTTCCTCCAAATTGGTGGAAATTATCCCAAAGGAACTAGAGCT
GTGCTACCGAAGCCCTGGGGAATCCCAGCTCTTCTCTGAGATCGACATTGGGCACATGGATTCAGAGATT
AAGCTGCAAATCAAAGACAAGAGGCACATGAATCTCAAATGGGAGGCCTTGCTGAAACCAGGGGATCTCA
GACCTGCACTGCCCAAGATTGCTACAGCCCCCAAAGATGCTCCTTCCTTGCTGCACTTCATGGACCAGCA
TCGGGAGCAGCTGGTGGCCCGAGTGACATCTGTAGATCCTCTCTTGGACAAGCTGCATGGTCTGGTGCTG
AGTGAAGATTCCTATGAAGTAGTGCGGTCTGAGACCACAAACCAAGACAAGATGAGGAAGCTCTTCAGCC
TCAGCCGGTCCTGGAGCTGGGATTGCAAAGACCAATTCTACCAAGCTCTGAAGGAGACCCATCCTCACCT
GGTCATGGATATACTTGAGAAGTTGGGTGGGGTCTCTGTGAAATCCTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
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).

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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]

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