OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for KN311043

Nlrp12 Mouse Gene Knockout Kit (CRISPR)

Product data:

Product Type: Knockout Kits (CRISPR)

Format: 2 gRNA vectors, 1 GFP-puro donor, 1 scramble control

Donor DNA: GFP-puro

Symbol: Nlrp12

Locus ID: 378425

Components: **KN311043G1**, Nlrp12 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GGTAGGTAGACAGTCGATAG
KN311043G2, Nlrp12 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: TACCTGGAAGAACTCGAGGC
KN311043D, donor DNA containing left and right homologous arms and GFP-puro functional cassette.
Homologous arm and GFP-puro sequences:

pUC vector backbone in gray; Left arm sequence in blue; GFP-puro in green; Right arm in violet

```
AAGGCGAGTT ACATGATCCC CCATGTTGTG CAAAAAAGCG GTTAGCTCCT TCGGTCCTCC GATCGTTGTC
AGAAGTAAGT TGGCCGCAGT GTTATCACTC ATGGTTATGG CAGCACTGCA TAATTCTCTT ACTGTCATGC
CATCCGTAAG ATGCTTTTCT GTGACTGGTG AGTACTCAAC CAAGTCATTC TGAGAATAGT GTATGCGGCG
ACCGAGTTGC TCTTGCCCGG CGTCAATACG GGATAATACC GCGCCACATA GCAGAACTTT AAAAGTGCTC
ATCATTGGAA AACGTTCTTC GGGGCGAAAA CTCTCAAGGA TCTTACCGCT GTTGAGATCC AGTTCGATGT
AACCCACTCG TGCACCCAAC TGATCTTCAG CATCTTTTAC TTTCACCAGC GTTTCTGGGT GAGCAAAAAC
AGGAAGGCAA AATGCCGCAA AAAAGGGAAT AAGGGCGACA CGGAAATGTT GAATACTCAT ACTCTTCCTT
TTTCAATATT ATTGAAGCAT TTATCAGGGT TATTGTCTCA TGAGCGGATA CATATTTGAA TGTATTTAGA
AAAATAAACA AATAGGGGTT CCGCGCACAT TTCCCCGAAA AGTGCCACCT GACGTCTAAG AAACCATTAT
TATCATGACA TTAACCTATA AAAATAGGCG TATCACGAGG CCCTTTCGGG TCGCGCGTTT CGGTGATGAC
GGTGAAAACC TCTGACACAT GCAGCTCCCG TTGACGGTCA CAGCTTGTCT GTAAGCGGAT GCCGGGAGCA
GACAAGCCCG TCAGGGCGCG TCAGCGGGTG TTGGCGGGTG TCGGGGCTGG CTTAACTATG CGGCATCAGA
GCAGATTGTA CTGAGAGTGC ACCATAAAAT TGTAAACGTT AATATTTTGT TAAAATTCGC GTTAAATTTT
TGTTAAATCA GCTCATTTTT TAACCAATAG GCCGAAATCG GCAAAATCCC TTATAAATCA AAAGAATAGC
CCGAGATAGG GTTGAGTGTT GTTCCAGTTT GGAACAAGAG TCCACTATTA AAGAACGTGG ACTCCAACGT
CAAAGGGCGA AAAACCGTCT ATCAGGGCGA TGGCCCACTA CGTGAACCAT CACCCAAATC AAGTTTTTTG
GGGTCGAGGT GCCGTAAAGC ACTAAATCGG AACCCTAAAG GGAGCCCCCG ATTTAGAGCT TGACGGGGAA
AGCCGGCGAA CGTGGCGAGA AAGGAAGGGA AGAAAGCGAA AGGAGCGGGC GCTAGGGCGC TGGCAAGTGT
AGCGGTCACG CTGCGCGTAA CCACCACACC CGCCGCGCTT AATGCGCCGC TACAGGGCGC GTACTATGGT
TGCTTTGACG TATGCGGTGT GAAATACCGC ACAGATGCGT AAGGAGAAAA TACCGCATCA GGCGCCATTC
GCCATTCAGG CTGCGCAACT GTTGGGAAGG GCGATCGGTG CGGGCCTCTT CGCTATTACG CCAGCTGGCG
AAAGGGGGAT GTGCTGCAAG GCGATTAAGT TGGGTAACGC CAGGGTTTTC CCAGTCACGA CGTTGTAAAA
CGACGGCCAG TGAATTGGAG GCTACAGTCA GTGGAGAGGA CTTTCACTGA CTGACTGACT GCGTCTCAAC
```


View online »

TCTGGGAATT GAACTCAGGG TCTCTGGAAG AGTAGTCAGT GCTCTGAACT GCTAAGCCAT CTCTCCAGCC
CGAACCTGGA ACTGCTGGTC CTCCCTCCTC TACCTCAGGA ATGCTGGCTT TATAGGAGAG TGCACCACTA
CATCTTCTCC ATGCAGTCAG TGGTGGAGCA GAACCCAGGG CTTCATTCTG CCCACCGAGC CACCTCCCCA
GCAGCCTTGC ATATTCCTGG AAGAGGCCAC ATCTTCACAC GTCCTTCTGA GTTAGAAGGA CACATAGAAA
GAGAGAAGAG CGTGGTTGTT TTGTCAAGGG CGCTGGGAAA ACAGCAGAAG CTTGCTCAAT GTGGGTCATG
CTTACGGTTG GATTACCTCA TACCAACTTC CACATCTTCA AAGCAAACAC TATTGTTGAC AGGAGCAGGT
AGCAGAGAAG CAATGGGTAG GAGAGTATAA TTTCTCGAAA GATCTTGCCT CTGTCCCAAT CTTATTCCTA
TAACCCTCAC CCCCTTTTGC TTGTCAATGA GGCCATGGCA GCGTGCTAGC TACAGTGCTT ATTGTCCTTT
TAGAGAGAGG TTAGAGCATC TGGCCCCGTT ACTTTGTCCC CCACTAGCAT GGAGAGCGAC GAGAGCGGCC
TGCCCGCCAT GGAGATCGAG TGCCGCATCA CCGGCACCCT GAACGGCGTG GAGTTCGAGC TGGTGGGCGG
CGGAGAGGGC ACCCCCGAGC AGGGCCGCAT GACCAACAAG ATGAAGAGCA CCAAAGGCGC CCTGACCTTC
AGCCCCTACC TGCTGAGCCA CGTGATGGGC TACGGCTTCT ACCACTTCGG CACCTACCCC AGCGGCTACG
AGAACCCCTT CCTGCACGCC ATCAACAACG GCGGCTACAC CAACACCCGC ATCGAGAAGT ACGAGGACGG
CGGCGTGCTG CACGTGAGCT TCAGCTACCG CTACGAGGCC GGCCGCGTGA TCGGCGACTT CAAGGTGATG
GGCACCGGCT TCCCCGAGGA CAGCGTGATC TTCACCGACA AGATCATCCG CAGCAACGCC ACCGTGGAGC
ACCTGCACCC CATGGGCGAT AACGATCTGG ATGGCAGCTT CACCCGCACC TTCAGCCTGC GCGACGGCGG
CTACTACAGC TCCGTGGTGG ACAGCCACAT GCACTTCAAG AGCGCCATCC ACCCCAGCAT CCTGCAGAAC
GGGGGCCCCA TGTTCGCCTT CCGCCGCGTG GAGGAGGATC ACAGCAACAC CGAGCTGGGC ATCGTGGAGT
ACCAGCACGC CTTCAAGACC CCGGATGCAG ATGCCGGTGA AGAAAGAGTT TAAGAATTCC GATCATATTC
AATAACCCTT AATATAACTT CGTATAATGT ATGCTATACG AAGTTATTAG GTCTGAAGAG GAGTTTACGT
CCAGCCAAGC TTAGGATCTC GACCTCGAAA TTCTACCGGG TAGGGGAGGC GCTTTTCCCA AGGCAGTCTG
GAGCATGCGC TTTAGCAGCC CCGCTGGGCA CTTGGCGCTA CACAAGTGGC CTCTGGCCTC GCACACATTC
CACATCCACC GGTAGGCGCC AACCGACTCC GTTCTTTGGT GGCCCCTTCG CGCCACCTTC TACTCCTCCC
CTAGTCAGGA AGTTCCCCCC CGCCCCGCAG CTCGCGTCGT GCAGGACGTG ACAAATGGAA GTAGCACGTC
TCACTAGTCT CGTGCAGATG GACAGCACCG CTGAGCAATG GAAGCGGGTA GGCCTTTGGG GCAGCGGCCA
ATAGCAGCTT TGCTCCTTCG CTTTCTGGGC TCAGAGGCTG GGAAGGGGTG GGTCCGGGGG CGGGCTCAGG
GGCGGGCTCA GGGGCGGGGC GGGCGCCCGA AGGTCCTCCG GAGGCCCGGC ATTCTGCACG CTTCAAAAGC
GCACGTCTGC CGCGCTGTTC TCCTCTTCCT CATCTCCGGG CCTTTCGACC TGCATCCATC TAGATCTCGA
GCAGCTGAAG CTTACCATGA CCGAGTACAA GCCCACGGTG CGCCTCGCCA CCCGCGACGA CGTCCCCAGG
GCCGTACGCA CCCTCGCCGC CGCGTTCGCC GACTACCCCG CCACGCGCCA CACCGTCGAT CCGGACCGCC
ACATCGAGCG GGTCACCGAG CTGCAAGAAC TCTTCCTCAC GCGCGTCGGG CTCGACATCG GCAAGGTGTG
GGTCGCGGAC GACGGCGCCG CGGTGGCGGT CTGGACCACG CCGGAGAGCG TCGAAGCGGG GGCGGTGTTC
GCCGAGATCG GCCCGCGCAT GGCCGAGTTG AGCGGTTCCC GGCTGGCCGC GCAGCAACAG ATGGAAGGCC
TCCTGGCGCC GCACCGGCCC AAGGAGCCCG CGTGGTTCCT GGCCACCGTC GGCGTCTCGC CCGACCACCA
GGGCAAGGGT CTGGGCAGCG CCGTCGTGCT CCCCGGAGTG GAGGCGGCCG AGCGCGCCGG GGTGCCCGCC
TTCCTGGAGA CCTCCGCGCC CCACAACCTC CCCTTCTACG AGCGGCTCGG CTTCACCGTC ACCGCCGACG
TCGAGGTGCC CGAAGGACCG CGCACCTGGT GCATGACCCG CAAGCCCGGT GCCTGACGCC CGCCCCACGA
CCCGCAGCGC CCGACCGAAA GGAGCGCACG ACCCCATGCA TCGATGATAT CAGATCCCCG GGATGCAGAA
ATTGATGATC TATTAAACAA TAAAGATGTC CACTAAAATG GAAGTTTTTC CTGTCATACT TTGTTAAGAA
GGGTGAGAAC AGAGTACCTA CATTTTGAAT GGAAGGATTG GAGCTACGGG GGTGGGGGTG GGGTGGGATT
AGATAAATGC CTGCTCTTTA CTGAAGGCTC TTTACTATTG CTTTATGATA ATGTTTCATA GTTGGATATC
ATAATTTAAA CAAGCAAAAC CAAATTAAGG GCCAGCTCAT TCCTCCCACT CATGATCTAT AGATCTATAG
ATCTCTCGTG GGATCATTGT TTTTCTCTTG ATTCCCACTT TGTGGTTCTA AGTACTGTGG TTTCCAAATG
TGTCAGTTTC ATAGCCTGAA GAACGAGATC AGCAGCCTCT GTTCCACATA CACTTCATTC TCAGTATTGT
TTTGCCAAGT TCTAATTCCA TCAGAAGCTG GTCGAGATCC GGAACCCTTA ATATAACTTC GTATAATGTA
TGCTATACGA AGTTATTAGG TCCCTCGAAG AGGTTCACTA GGCGCGCCAT TATTCCTGGG GATTGCAGAG
GACCTGAGCC AGGACAAAAT TCCCTGGGGA CGAATGGAGA AGGCTGGTCC TCTGGAAATG GCTCAGCTGA
TGGTGGCCCA CATGGGGACA AGGGAGGCTT GGCTTCTGGC TCTCAGCACC TTTCAGAGGA TTCACAGGAA
GGACCTGTGG GAGCGAGGAC AGGGAGAAGA CCTGGTGAGG GGTAAGGAGG GCAAGGGAGG TACAGCCTGG
AACACATCCA TTCTCTTATC TTTACCATTG TGAGCTGGAT TCAAATTTCA GCCAGTGGTC TCTTTCCATG
TCTACTACAA ATCCCCTCTT TTTTTAAAAA AGGACTTTGT GGTGTATGTG TGTGTGTGTG TGTGTGTGTG
TGTGTGAGAG AGAGAGAGAG AGAGAGAGAG AGAGAGAGAG AATTTGCAAA AGTCCATTGT CTCCTTCTAC

AACTGGAATG GTTTTGGCCA TGTTTCTGAC CCTAATCCCA GTATTCTCAT ATGTGTACAT AATGTTGATC
ACACACACAC TCATGACTCC ACCTCCTGCT CCTCCCATGG ACCCCTTCCT CTCCCAAATA GTCCTCTTCC
TACTTTGATG TCTTTTTTAG TGAGAGACGA CTGACTGACT GACTGGAAAG AGGAAGGGCT GGAAGAGGAA
GGAGCTTGGC GTAATCATGG TCATAGCTGT TTCCTGTGTG AAATTGTTAT CCGCTCACAA TTCCACACAA
CATACGAGCC GGAAGCATAA AGTGTAAAGC CTGGGGTGCC TAATGAGTGA GCTAACTCAC ATTAATTGCG
TTGCGCTCAC TGCCCGCTTT CCAGTCGGGA AACCTGTCGT GCCAGCTGCA TTAATGAATC GGCCAACGCG
CGGGGAGAGG CGGTTTGCGT ATTGGGCGCT CTTCCGCTTC CTCGCTCACT GACTCGCTGC GCTCGGTCGT
TCGGCTGCGG CGAGCGGTAT CAGCTCACTC AAAGGCGGTA ATACGGTTAT CCACAGAATC AGGGGATAAC
GCAGGAAAGA ACATGTGAGC AAAAGGCCAG CAAAAGGCCA GGAACCGTAA AAAGGCCGCG TTGCTGGCGT
TTTTCCATAG GCTCCGCCCC CCTGACGAGC ATCACAAAAA TCGACGCTCA AGTCAGAGGT GGCGAAACCC
GACAGGACTA TAAAGATACC AGGCGTTTCC CCCTGGAAGC TCCCTCGTGC GCTCTCCTGT TCCGACCCTG
CCGCTTACCG GATACCTGTC CGCCTTTCTC CCTTCGGGAA GCGTGGCGCT TTCTCATAGC TCACGCTGTA
GGTATCTCAG TTCGGTGTAG GTCGTTCGCT CCAAGCTGGG CTGTGTGCAC GAACCCCCCG TTCAGCCCGA
CCGCTGCGCC TTATCCGGTA ACTATCGTCT TGAGTCCAAC CCGGTAAGAC ACGACTTATC GCCACTGGCA
GCAGCCACTG GTAACAGGAT TAGCAGAGCG AGGTATGTAG GCGGTGCTAC AGAGTTCTTG AAGTGGTGGC
CTAACTACGG CTACACTAGA AGAACAGTAT TTGGTATCTG CGCTCTGCTG AAGCCAGTTA CCTTCGGAAA
AAGAGTTGGT AGCTCTTGAT CCGGCAAACA AACCACCGCT GGTAGCGGTG GTTTTTTTGT TTGCAAGCAG
CAGATTACGC GCAGAAAAAA AGGATCTCAA GAAGATCCTT TGATCTTTTC TACGGGGTCT GACGCTCAGT
GGAACGAAAA CTCACGTTAA GGGATTTTGG TCATGAGATT ATCAAAAAGG ATCTTCACCT AGATCCTTTT
AAATTAAAAA TGAAGTTTTA AATCAATCTA AAGTATATAT GAGTAAACTT GGTCTGACAG TTACCAATGC
TTAATCAGTG AGGCACCTAT CTCAGCGATC TGTCTATTTC GTTCATCCAT AGTTGCCTGA CTCCCCGTCG
TGTAGATAAC TACGATACGG GAGGGCTTAC CATCTGGCCC CAGTGCTGCA ATGATACCGC GAGAACCACG
CTCACCGGCT CCAGATTTAT CAGCAATAAA CCAGCCAGCC GGAAGGGCCG AGCGCAGAAG TGGTCCTGCA
ACTTTATCCG CCTCCATCCA GTCTATTAAT TGTTGCCGGG AAGCTAGAGT AAGTAGTTCG CCAGTTAATA
GTTTGCGCAA CGTTGTTGCC ATTGCTACAG GCATCGTGGT GTCACGCTCG TCGTTTGGTA TGGCTTCATT
CAGCTCCGGT TCCCAACGAT C

GE100003, scramble sequence in pCas-Guide vector

Disclaimer: These products are manufactured and supplied by OriGene under license from ERS. The kit is designed based on the best knowledge of CRISPR technology. The system has been functionally validated for knocking-in the cassette downstream the native promoter. The efficiency of the knock-out varies due to the nature of the biology and the complexity of the experimental process.

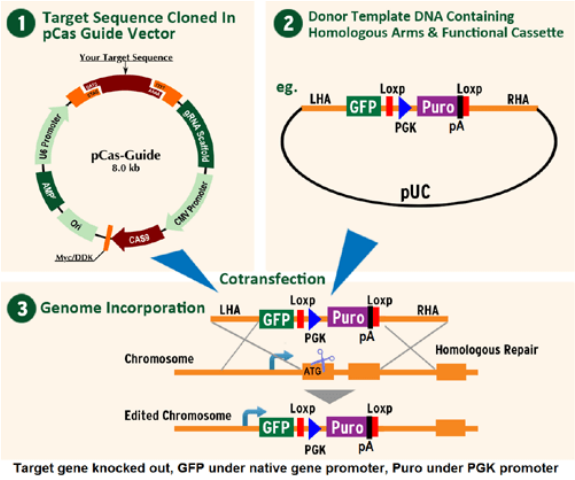
RefSeq: NM_001033431

UniProt ID: E9Q5R7

Synonyms: Nalp12; PYPAF7

Summary: Plays an essential role as an 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:



Target gene knocked out, GFP under native gene promoter, Puro under PGK promoter