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# Product datasheet for RC226286L2

## NLRP3 (NM_001127461) Human Tagged Lenti ORF Clone

### Product data:

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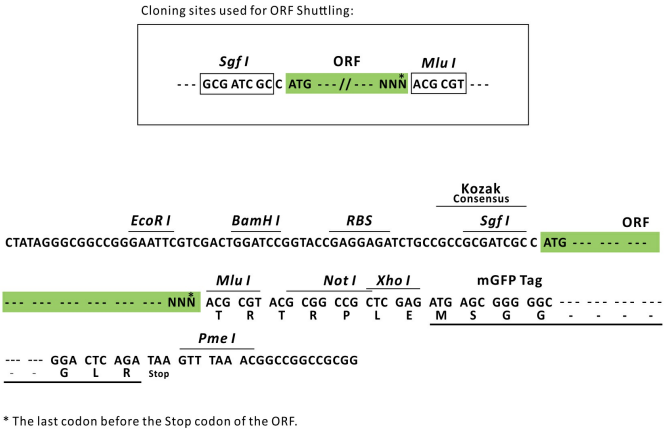
|---|---|
| **Product Type:** | Expression Plasmids |
| **Product Name:** | NLRP3 (NM_001127461) Human Tagged Lenti ORF Clone |
| **Tag:** | mGFP |
| **Symbol:** | NLRP3 |
| **Synonyms:** | AGTAVPRL; AII; AVP; C1orf7; CIAS1; CLR1.1; DFNA34; FCAS; FCAS1; FCU; KEFH; MWS; NALP3; PYPAF1 |
| **Mammalian Cell Selection:** | None |
| **Vector:** | pLenti-C-mGFP (PS100071) |
| **E. coli Selection:** | Chloramphenicol (34 ug/mL) |
| **ORF Nucleotide Sequence:** | The ORF insert of this clone is exactly the same as(RC226286). |
| **Restriction Sites:** | SgfI-MluI |
| **Cloning Scheme:** | |




* The last codon before the Stop codon of the ORF.

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| **ACCN:** | NM_001127461 |
| **ORF Size:** | 2937 bp |

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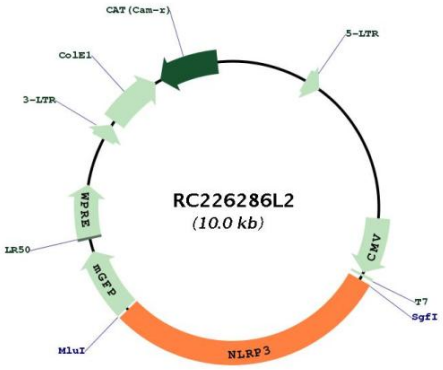
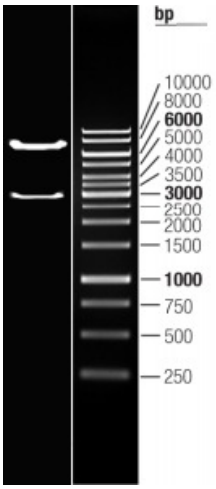
|---|---|
| **OTI Disclaimer:** | Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional 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 or by calling 301.340.3188 option 3 for pricing and delivery.<br><br>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.<br>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.<br>3. Close the tube and incubate for 10 minutes at room temperature.<br>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.<br>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_001127461.1, NP_001120933.1 |
| **RefSeq ORF:** | 2934 bp |
| **Locus ID:** | 114548 |
| **UniProt ID:** | Q96P20 |
| **Cytogenetics:** | 1q44 |
| **Protein Families:** | Druggable Genome |
| **Protein Pathways:** | NOD-like receptor signaling pathway |
| **MW:** | 112.1 kDa |

**Gene Summary:** This gene encodes a pyrin-like protein containing a pyrin domain, a nucleotide-binding site (NBS) domain, and a leucine-rich repeat (LRR) motif. This protein interacts with the apoptosis-associated speck-like protein PYCARD/ASC, which contains a caspase recruitment domain, and is a member of the NLRP3 inflammasome complex. This complex functions as an upstream activator of NF-kappaB signaling, and it plays a role in the regulation of inflammation, the immune response, and apoptosis. The SARS-CoV 3a protein, a transmembrane pore-forming viroporin, has been shown to activate the NLRP3 inflammasome via the formation of ion channels in macrophages. Mutations in this gene are associated with familial cold autoinflammatory syndrome (FCAS), Muckle-Wells syndrome (MWS), chronic infantile neurological cutaneous and articular (CINCA) syndrome, neonatal-onset multisystem inflammatory disease (NOMID), keratoendotheliitis fugax hereditarian, and deafness, autosomal dominant 34, with or without inflammation. Multiple alternatively spliced transcript variants encoding distinct isoforms have been identified for this gene. Alternative 5' UTR structures are suggested by available data; however, insufficient evidence is available to determine if all of the represented 5' UTR splice patterns are biologically valid. [provided by RefSeq, Aug 2020]

## Product images:




Circular map for RC226286L2




Double digestion of RC226286L2 using SgfI and MluI