

## Product datasheet for **RG226286**

### **NLRP3 (NM\_001127461) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	NLRP3 (NM_001127461) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	NLRP3
Synonyms:	AGTAVPRL; AII; AVP; C1orf7; CIAS1; CLR1.1; DFNA34; FCAS; FCAS1; FCU; KEFH; MWS; NALP3; PYPAF1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG226286 representing NM\_001127461  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGAAGATGGCAAGCACCCGCTGCAAGCTGGCCAGGTACCTGGAGACCTGGAGGATGTGGACTTGAAGA  
 AATTTAAGATGCACTTAGAGGACTATCCTCCCCAGAAGGGCTGCATCCCCCTCCCGAGGGGTGAGACAGA  
 GAAGGCAGACCATGTGGATCTAGCCACGCTAATGATCGACTTCAATGGGAGGAGAAAGCGTGGCCATG  
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 GGGGTTGAGATAATGCACGTGTTTGAATCCCCTGTGATATGCCAGGAAGACAGCATTGAAGAGGAGTG  
 GATGGGTTTACTGGAGTACCTTTGAGAATCTCTATTTGTAATAAAGAAAGATTACCGTAAGAAGTAC  
 AGAAAGTACGTGAGAAGCAGATTCCAGTGCATTGAAGACAGGAATGCCCGTCTGGGTGAGAGTGTGAGCC  
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 GCGAGAAGTTCTACAGTTCATCCACATGACTTCCAGGAGTCTTGGCCCATGTACTACCTGCTGGA  
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 AAAAAGTGCCTTAGAAACACTTCAAGAAGAAAAGCCTGAGCTGACCGTCTCTTTGAGCCTTCTTGG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG226286 representing NM\_001127461  
 Red=Cloning site Green=Tags(s)

MKMASTRCKLARYLEDLEDVDLKKFKMHLEDYPPQKGC IPLPRGQTEKADHVDLATLMIDFN GEEKAWAM  
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 PDDEHSEPVHTVVVFQGAAGIGKTLARKMMLDWASGTL YQDRFDYLFYIHCREVSLVTQRS LGDLIMSCC  
 PDPNPP IHKIVRKPSRILFLMDGFDELQGA FDEHIGPLCTDWQKAERGDILLSSLIRKKLLPEASLLITT  
 RPVALEKLQHLLDHPRHVEILGFSEAKRKEYFFKYFSDEAQAARAAFSLIQENEVLF TMCFIPLVCWIVCT  
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 LLENYGKFEKGYLIFVVRFLFGLVNQERTSYLEKKLSCKISQQIRLELLKWI EVKAKAKKLQIQPSQLEL  
 FYCLYEMQEEDFVQRAMDYFPKIEINLSTRMDHMVSSFCIENCHRVESLSL GFLHNMPKEEEEEKEGRH  
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 NIRRLWLGRGCL SHECCFDISLVLSSNQKLV ELDLSDNALGDFGIRLLCVGLKHLLCNLKKLWLVNSGLT  
 SVCCSALSSVLSTNQNLTHLYLRGNTLGDKGIKLLCEGLLHPDCKLQVLELDN CNLTSHCWDLSTLLTS  
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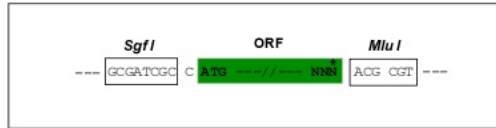
TRTRPLE - GFP Tag - V

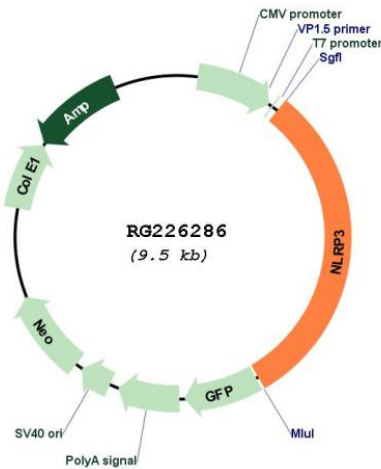
Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



**Plasmid Map:**


**ACCN:** NM\_001127461

**ORF Size:** 2937 bp

**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](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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\\_001127461.1](#), [NP\\_001120933.1](#)

RefSeq Size:	4316 bp
RefSeq ORF:	2934 bp
Locus ID:	114548
UniProt ID:	<a href="#">Q96P20</a>
Cytogenetics:	1q44
Protein Families:	Druggable Genome
Protein Pathways:	NOD-like receptor signaling pathway
Gene Summary:	<p>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 hereditaria, 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]</p>