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Product datasheet for SC331953

NLRP3 (NM_001243133) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NLRP3 (NM_001243133) Human Untagged Clone
Tag:	Tag Free
Symbol:	NLRP3
Synonyms:	AGTAVPRL; AII; AVP; C1orf7; CIAS1; CLR1.1; DFNA34; FCAS; FCAS1; FCU; KEFH; MWS; NALP3; PYPAF1
Vector:	pCMV6-Entry (PS100001)

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Fully Sequenced ORF:

>SC331953 representing NM_001243133.
Blue=Insert sequence Red=Cloning site Green=Tag(s)

ATGGCAAGCACCCGCTGCAAGCTGGCCAGGTACCTGGAGGACCTGGAGGATGTGGACTTGAAGAAATTT
AAGATGCACTTAGAGGACTATCCTCCCCAGAAGGGCTGCATCCCCCTCCCGAGGGGTCAGACAGAGAAG
GCAGACCATGTGGATCTAGCCACGCTAATGATCGACTTCAATGGGGAGGAGAAGGCGTGGGCCATGGCC
GTGTGGATCTTCGCTGCGATCAACAGGAGAGACCTTTATGAGAAAGCAAAAAGAGATGAGCCGAAGTGG
GGTTCAGATAATGCACGTGTTTCGAATCCCACTGTGATATGCCAGGAAGACAGCATTGAAGAGGAGTGG
ATGGGTTTACTGGAGTACCTTTCGAGAATCTCTATTTGTAAAATGAAGAAAGATTACCGTAAGAAGTAC
AGAAAGTACGTGAGAAGCAGATTCCAGTGCATTGAAGACAGGAATGCCCGTCTGGGTGAGAGTGTGAGC
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CTTCTGGCCATCGGCAAGACCAAGACGTGTGAGAGCCCCGTGAGTCCCATTAAGATGGAGTTGCTGTTT
GACCCCGATGATGAGCATTCTGAGCCTGTGCACACCGTGGTGTTCCAGGGGGCGGCAGGGATTGGGAAA
ACAATCCTGGCCAGGAAGATGATGTTGGACTGGGCGTCGGGGACACTCTACCAAGACAGGTTTGACTAT
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TGCTGCCCCGACCCAAACCCACCCATCCACAAGATCGTGAGAAAACCCTCCAGAATCCTCTTCCTCATG
GACGGCTTCGATGAGCTGCAAGGTGCCTTTGACGAGCACATAGGACCGCTCTGCACTGACTGGCAGAAG
GCCGAGCGGGGAGACATTCTCCTGAGCAGCCTCATCAGAAAGAAGCTGCTTCCCGAGGCCTCTCTGCTC
ATCACCACGAGACCTGTGGCCCTGGAGAAACTGCAGCACTTGCTGGACCATCCTCGGCATGTGGAGATC
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ATGGACTATTTCCCCAAGATTGAGATCAATCTCTCCACCAGAATGGACCACATGGTTTCTTCCTTTTGC
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GAGGAGGAAAAGGAAGGCCGACACCTTGATATGGTGCAGTGTGTCCTCCCAAGCTCCTCTCATGCTGCC
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TGTGAAACGCTCCAGCATCCTGGCTGTAACATTCGGAGATTGTGGTTGGGGCGCTGTGGCCTCTCGCAT
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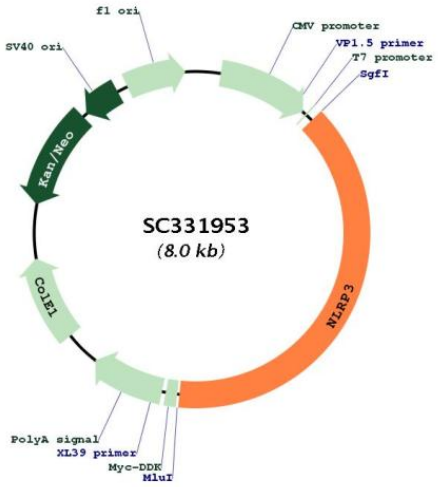
TTGGAATTAGACAACTGCAACCTCACGTCACACTGCTGCTGGGATCTTTCCACACTTCTGACCTCCAGC
CAGAGCCTGCGAAAGCTGAGCCTGGGCAACAATGACCTGGGCGACCTGGGGGTCATGATGTTCTGTGAA
GTGCTGAAACAGCAGAGCTGCCTCCTGCAGAACCTGGGGTTGTCTGAAATGTATTTCAATTATGAGACA
AAAAGTGCGTTAGAAACACTTCAAGAAGAAAAGCCTGAGCTGACCGTCGTCTTTGAGCCTTCTTGGTAG

Restriction Sites: SgfI-MluI

Plasmid Map:



ACCN:	NM_001243133
Insert Size:	3105 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_001243133.1
RefSeq Size:	4470 bp
RefSeq ORF:	3105 bp
Locus ID:	114548
UniProt ID:	Q96P20
Cytogenetics:	1q44
Protein Families:	Druggable Genome
Protein Pathways:	NOD-like receptor signaling pathway

MW: 117.9 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]
Transcript Variant: This variant (6) is identical to variant 1 but uses a downstream start codon. The resulting protein (isoform e) is shorter at the N-terminus compared to isoform a.
Sequence Note: This RefSeq initiates translation at a downstream start codon, resulting in a protein that is two aa shorter at the N-terminus compared to other isoforms. This RefSeq was created to support the clinical genetics community because the residue coordinates referred to by that community and the literature, including PMIDs:11687797, 11786556 and 12522564, are based on the use of the downstream start codon. No experimental evidence exists to show which start codon is preferentially used. The RefSeq record was created from transcript and genomic sequence data. The genomic coordinates used for the transcript record were based on transcript alignments.