

Product datasheet for **SC316302**

CARD4 (NOD1) (NM_006092) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CARD4 (NOD1) (NM_006092) Human Untagged Clone
Tag:	Tag Free
Symbol:	CARD4
Synonyms:	CARD4; CLR7.1; NLRC1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_006092 edited
 CTCTAGCTCTCAGCGGCTGCGAAGTCTGTAAACCTGGTGGCCAAGTGATTGTAAGTCAGG
 AGACTTTTCCTTCGGTTTTCTGCCTTTGATGGCAATTCCTTCGGTTTCTGCCTTTGATGGC
 AAGAGGTGGAGATTGTGGCGGCGATTACAGAGAACGTCTGGGAAGACAAGTTGCTGTTTT
 TATGGGAATCGCAGGCTTGAAGAGACAGAAGCAATTCAGAAATAAATTGGAAATTGAA
 GATTTAAACAATGTTGTTTTAAATATTCTAACTCAAAGAATGATGCCAGAACTTAA
 AAGGGGCTGCGCAGAGTAGCAGGGGCCCTGGAGGGCGCGGCTGAATCCTGATTGCCCTT
 CTGCTGAGAGGACACACGAGCTGAAGATGAATTTGGGAAAAGTAGCCGCTTGCTACTTT
 AACTATGGAAGAGCAGGGCCACAGTGAGATGGAATAATCCATCAGAGTCTCACCCCA
 CATTCAATTAAGAAAAGCAATCGGGAACCTTCTGGTCACTCACATCCGAATACTCAGTG
 TCTGGTGGACAACCTGCTGAAGAATGACTACTTCTCGGCCGAAGATGCGGAGATTGTGTG
 TGCTGCCCCACCCAGCCTGACAAGTCCGCAAATTCTGGACCTGGTACAGAGCAAGGG
 CGAGGAGGTGTCCGAGTTCTTCCCTACTTGTCTCCAGCAACTCGCAGATGCCTACGTGGA
 CCTCAGGCCTTGCTGCTGGAGATCGGCTTCTCCCTTCCCTGCTCACTCAGAGCAAAGT
 CGTGGTCAACACTGACCCAGTGAGCAGGTATACCCAGCAGCTGCGACCCATCTGGGCCG
 TGACTCCAAGTTCGTGCTGTGCTATGCCAGAAGGAGGAGCTGCTGCTGGAGGAGATCTA
 CATGGACACCATCATGGAGCTGGTTGGCTTCAGCAATGAGAGCCTGGGCAGCCTGAACAG
 CCTGGCCTGCCTCCTGGACCACACCACCGGCATCCTCAATGAGCAGGGTGAGACCATCTT
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 GGCCACGGGCGGCTAGACGCAAGGGTCAAATTCTTCTTCCACTTTCGCTGCCGCATGTT
 CAGCTGCTTCAAGGAAAGTGACAGGCTGTGTCTGCAGGACCTGCTCTTCAAGCACTACTG
 CTACCCAGAGCGGGACCCGAGGAGGTGTTTGCCTTCTGCTGCGCTTCCCCACGTGGC
 CCTTTACCTTCGATGGCCTGGACGAGCTGCACTCGACTTGGACCTGAGCCGCGTGCC
 TGACAGCTCCTGCCCTGGGAGCCTGCCACCCCTGGTCTTGTGTCGCAACCTGCTCAG
 TGGGAAGTGTCTAAGGGGGCTAGCAAGCTGCTCACAGCCGCACAGGCATCGAGGTCCC
 GCGCCAGTTCTCGGAAGAAGGTGCTTCTCCGGGGCTTCTCCCCAGCCACCTGCGCGC
 CTATGCCAGGAGATGTTCCCCGAGCGGGCCCTGCAGGACCGCTGCTGAGCCAGCTGGA



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GGCCAACCCCAACCTCTGCAGCCTGTGCTCTGTGCCCTCTTCTGCTGGATCATCTTCCG
 GTGCTTCCAGCACTTCCGTGCTGCCTTTGAAGGCTCACCACAGCTGCCGACTGCACGAT
 GACCCTGACAGATGTCTTCTCCTGGTCACTGAGGTCCATCTGAACAGGATGCAGCCCAG
 CAGCCTGGTGCAGCGGAACACACGCAGCCCAGTGGAGACCCTCCACGCCGGCCGGGACAC
 TCTGTGCTCGTGGGGCAGGTGGCCACCGGGCATGGAGAAGAGCCTCTTTGTCTTAC
 CCAGGAGGAGGTGCAGGCCTCCGGGTGCAGGAGAGAGACATGCAGCTGGGCTTCCCTGCC
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 GCAAGCCAGCTTCTGTGCAGAAGGTCTGGTCCGCAAACCTCCCTAAGTACCCGCTACAAT
 TCTGCAGAAAAAAGATGTGTCTTGCAGCTGTTGTAGTTACAGTAAATCACTGTGAAGA
 GACTTTATTGCCTATTATAATTATTTTTATCTGAAGCTAGAGGAATAAGCTGTGAGCAA
 ACAGAGGAGGCCAGCCTCACCTCATTCCAACACCTGCCATAGGGACCAACGGGAGCGAGT
 TGGTCACCGCTCTTTTCATTGAAGAGTTGAGGATGTGGCACAAGTTGGTGCCAAGCTTC
 TTGAATAAAACGTTGTTGATGGATTAGTATTATACCTGAAATATTTCTCTCTCAGC
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 TGTGGGATTTGACTCCTCCAAGTTTTGTGAAAGTTAATGTCAAGGAAAGGATGCACCA
 CGGGCTTTTAATTTAATCCTGGAGTCTCACTGTCTGCTGGCAAAGATAGAGAATGCCCT
 CAGCTCTTAGCTGGTCTAAGAATGACGATGCCTTCAAATGCTGCTTCCACTCAGGGCTT
 CTCCTCTGCTAGGCTACCCTCCTCTAGAAGGCTGAGTACCATGGGCTACAGTGTCTGGCC
 TTGGGAAGAAGTATTCTGTCCCTCCAAGAAATAGGGCATGGCTTGCCCTGTGGCCCT
 GGCATCCAAATGGCTGCTTTGTCTCCCTTACCTCGTGAAGAGGGGAAGTCTTCTCTGC
 CTCCAAGCAGCTGAAGGGTACTAAACGGGCGCAAGACTCAGGGGATCGGCTGGGAAC
 TGGGCCAGCAGAGCATGTTGGACACCCCCACCATGGTGGGCTTGTGGTGGCTGCTCCAT
 GAGGGTGGGGTGATACTACTAGATCACTTGCCTCTTGGCCGCTCATTTGTTAATAAAA
 TACTGAAAAC

5' Read Nucleotide Sequence:	>OriGene 5' read for NM_006092 unedited GGCTACTTGTATACGACTCCTATAGGGCGGCCGCGTATCTATCCCGGGATATCCGTCGAC CCACGCGTCCGCCCGGCCCGGCGTCCCGGACCATGGCGCTCTCCGGGCTCTTCTCTAG CTCTCAGCGGCTGCGAAGTCTGTAACCTGGTGGCCAAGTATTGTAAGTCAGGAGACTT TCCTTCGGTTTCTGCCTTTGATGGCAAGAGGTGGAGATTGGCGGCGATTACAGAAAAC GTCTGGGAAGACAAGTTGCTGTTTTATGGGAATCGCAGGCTTGGAAAGACAGAAGCAA TTCCAGAAATAAATTGGAAATTGAAGATTTAAACAATGTTGTTTTAAACATTCTAACTT CAAAGAATGATGCCAGAACTTAAAAAGGGCTGCGCAGAGTAGCAGGGCCCTGGAGGG CGCGGCCCTGAATCCTGATTGCCCTTCTGCTGAGAGGACACACGAGCTGAAGATGAATTT GGGAAAAGTAGCCGCTTCTACTTTAACTATGGAAGAGCAGGGCCACAGTGAGATGGAAA TAATCCCATCAGAGTCTCACCCACATTCAATTACTGAAAAGCAATCGGGAAGTCTTG TCACTCACATCCGCAATACTCAGTGTCTGGTGGACAAGTGTGAAGAATGACTACTTCT CGGCCGAAGATGCGGAGATTGTGTGCTGCTGCCACCCAGCCTGACAAGTCCGCAAAA TTCTGGACCTGGTACAGAGCAAGGGCGAGGAGGTCCGAGTTCTTCTCTACTTGCTCC AGCAACTCGCAGATGCCTACGTGGACCTCAGCCTTGGCTGCTGGAGATCGGCTTCTCCCT TCCCTGCTCACTCAGAGCAAAGTCGTGGTCAACACTGACC
Restriction Sites:	Please inquire
ACCN:	NM_006092
Insert Size:	4400 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).
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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:	<ol style="list-style-type: none"> 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_006092.1 , NP_006083.1
RefSeq Size:	4390 bp
RefSeq ORF:	2862 bp
Locus ID:	10392
UniProt ID:	Q9Y239
Cytogenetics:	7p14.3

Domains:	CARD, LRR, LRR_RI
Protein Families:	Druggable Genome
Protein Pathways:	Epithelial cell signaling in Helicobacter pylori infection, NOD-like receptor signaling pathway
Gene Summary:	<p>This gene encodes a member of the nucleotide-binding oligomerization domain (NOD)-like receptor (NLR) family of proteins. The encoded protein plays a role in innate immunity by acting as a pattern-recognition receptor (PRR) that binds bacterial peptidoglycans and initiates inflammation. This protein has also been implicated in the immune response to viral and parasitic infection. Major structural features of this protein include an N-terminal caspase recruitment domain (CARD), a centrally located nucleotide-binding domain (NBD), and 10 tandem leucine-rich repeats (LRRs) in its C terminus. The CARD is involved in apoptotic signaling, LRRs participate in protein-protein interactions, and mutations in the NBD may affect the process of oligomerization and subsequent function of the LRR domain. Mutations in this gene are associated with asthma, inflammatory bowel disease, Behcet disease and sarcoidosis in human patients. [provided by RefSeq, Aug 2017]</p>