

## Product datasheet for RC206757

### CARD12 (NLRC4) (NM\_021209) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CARD12 (NLRC4) (NM_021209) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CARD12
Synonyms:	AIFEC; CARD12; CLAN; CLAN1; CLANA; CLANB; CLANC; CLAND; CLR2.1; FCAS4; IPAF
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC206757 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAATTCATAAAGGACAATAGCCGAGCCCTTATCAAAGAATGGGAATGACTGTTATAAAGCAAATCA  
CAGATGACCTATTTGTATGGAATGTTCTGAATCGCGAAGAAGTAAACATCATTGCTGCGAGAAGGTGGA  
GCAGGATGCTGCTAGAGGGATCATTACATGATTTTAAAAAGGGTTAGAGTCTGTAACTCTTTCTT  
AAATCCCTTAAGGAGTGGAACTATCCTCTATTTAGGACTTGAATGGACAAAGTCTTTTTCATCAGACAT  
CAGAAGGAGACTTGGACGATTTGGCTCAGGATTTAAAGGACTTGTACCATACCCATCTTTTCTGAACTT  
TTATCCCCTTGGTGAAGATATTGACATTTTTAACTTGAAAAGCACCTTACAGAACCTGTCCCTGTGG  
AGGAAGGACCAACACCATCACCGCTGGAGCAGCTGACCTGAATGGCCTCCTGCAGGCTTTCAGAGCC  
CCTGCATCATTGAAGGGGAATCTGGCAAAGGCAAGTCCACTCTGCTGCAGCGAATTGCCATGCTCTGGGG  
CTCCGAAAGTGAAGGCTCTGACCAAGTTCAAATTCGTCTTCTCCTCCGTCTCAGCAGGGCCAGGGT  
GGACTTTTTGAAACCCTCTGTGATCAACTCCTGGATATACCTGGCACAATCAGGAAGCAGACATTCATGG  
CCATGCTGCTGAAGTGCAGGAGGTTCTTTCTTCTTGTATGGCTACAATGAATCAAGCCCCAGAA  
CTGCCCAGAAATCGAAGCCCTGATAAAGGAAAACCACCGCTTCAAGAACATGGTCATCGTACCCTACC  
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GCGCCCAGGCTCTCATCCGAGAAGTGTGATCAAGGAGCTTGTGAAGGCTTGTGCTCCAAATTCAGAA  
ATCCAGGTGCTTGAAGATCTCATGAAGACCCCTCTCTTTGTGGTCATCACTTGTGCAATCCAGATGGGT  
GAAAGTGAGTTCCACTCTCACACACAAACAACGCTGTTCCATACCTTCTATGATCTGTTGATACAGAAAA  
ACAAACACAAACATAAAGGTGTGGCTGCAAGTGACTTCATTTCGGAGCCTGGACCTGTGGAGACCTAGC  
TCTGGAGGTGTGTTCTCCACAAGTTTGAATTCGAACTGCAGGATGTGTCCAGCGTGAATGAGGATGTC  
CTGCTGACAACTGGGCTCCTCTGTAATATACAGCTCAAAGTTCAAGCCAAAGTATAAATCTTTTCA  
AGTCATTCCAGGAGTACACAGCAGGACGAAGACTCAGCAGTTTATTGACGTCTCATGAGCCAGAGGAGT  
GACCAAGGGGAATGGTTACTTGCAGAAAATGGTTCCATTTTCGGACATTACATCCACTTATAGCAGCCTG



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CTCCGGTACACCTGTGGGTCACTGTGGAAGCCACCAGGGCTGTTATGAAGCACCTCGCAGCAGTGTATC  
AACACGGCTGCCTTCTCGGACTTCCATCGCCAAGAGGCCTCTCTGGAGACAGGAATCTTTGCAAAGTGT  
GAAAAACACCACTGAGCAAGAAATCTGAAAGCCATAAACATCAATTCCTTTGTAGAGTGTGGCATCCAT  
TTATATCAAGAGAGTACATCCAATCAGCCCTGAGCCAAGAATTTGAAGCTTTCTTTCAAGGTAAGAGCT  
TATATCAACTCAGGGAACATCCCCGATTACTTATTTGACTTCTTTGAACATTTGCCAATTGTGCAAG  
TGCCCTGGACTTCATTAACCTGGACTTTTATGGGGGAGCTATGGCTTCATGGGAAAAGGCTGCAGAAGAC  
ACAGTGGAAATCCACATGGAAGAGGCCCCAGAAACCTACATCCCAGCAGGGCTGTATCTTTGTTCTTCA  
ACTGGAAGCAGGAATTCAGGACTCTGGAGGTCACTCCGGGATTCAGCAAGTTGAATAAGCAAGATAT  
CAGATATCTGGGAAAAATATTCAGCTCTGCCACAAGCCTCAGGCTGCAAAATAAGAGATGTGCTGGTGTG  
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TCACCATAGAAGATGAGAGGCACATCACATCTGTAACAAACCTGAAAACCTTGAGTATTCATGACCTACA  
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GCTCAGAATCTTCAAAATTTGGTCAAACCTGAGCATTCTTGATTTATCAGAAAATACCTGAAAAAGATG  
GAAATGAAGCTCTTCATGAACTGATCGACAGGATGAACGTGCTAGAACAGCTCACCGCACTGATGCTGCC  
CTGGGGCTGTGACGTGCAAGGCAGCCTGAGCAGCCTGTTGAAACATTTGGAGGAGGTCCCAACTCGTC  
AAGCTTGGGTGAAAACTGGAGACTCACAGATACAGAGATTAGAATTTTAGGTGCATTTTTGGAAAGA  
ACCCTCTGAAAACTCCAGCAGTTGAATTTGGCGGAAATCGTGTGAGCAGTGTGGATGGCTTGCCCT  
CATGGGTGATTTGAGAACTTAAGCAATTAGTGTTTTTGACTTTAGTACTAAGAATTTCTACCTGAT  
CCAGCATTAGTCAGAAAACCTAGCCAAGTGTATCCAAGTTAACTTTTCTGCAAGAAGCTAGGCTTGTG  
GGTGGCAATTTGATGATGATGATCTCAGTGTATTACAGGTGCTTTTAACTAGTAACTGCT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC206757 protein sequence  
Red=Cloning site Green=Tags(s)

MNFIKDNSRALIQRMGMTVIKQITDDL FVWVNLNREEVNIICCEKVEQDAARGIIHMILKKGSESCNLF  
KSLKEWNYPLFQDLNGQSLFHQTSEGLDDLAQDLKDLYHTPSFLNFYPLGEDIDIIFNLKSTFTEPVLW  
RKDQHHRHVEQLTLNGLLQALQSPCIEGESGKSTLLQRIAMLWGSCKKALTKFKVFFLRLSRAQG  
GLFETLCDQLLDIPGTIRKQTFMAMLLKLRQVLFLLDGYNEFKPQNCPEIEALIKENHRFKNMVIVTTT  
TECLRHIRQFGALTAEVGDMTEDSAQALIREVL IKELAEGLLLQIQKSRCLRNLKMTPLFVVITCAIQMG  
ESEFHSHQTTLFHTFYDLLIQKNKHKHKGVAASDFIRSLDHCGDLAEGVFSHKFDFELQDVSSVNEVD  
LLTTGLLCKYTAQRFKPKYKFFHKSFQEYTAGRRLSSLLTSHEPEEVTKGNGYLQKMSISDITSTYSSL  
LRYTCGSSVEATRAVMKHLAAVYQHGLLGLSIAKRPLWRQESLQSVKNTTEQEILKAININSFVECGIH  
LYQESTSKSALSQFEAFQGKSLYINSGNIPDYLFDFEHLPCASALDFIKLDFYGGAMASWEKAAED  
TGGIHMEAPETYIPSRAVSLFFNWKQEFRTLEVTLRDFSKLNKQDIRYLGKIFSSATSRLRQIKRCAGV  
AGSLSLVLSTCKNIYSLMVEASPLTIEDERHITSVTNLKTL SIHDLQNQLPGGLTDSLGNLKNLTKLIM  
DNIKMNEEDAIKLAEGLKNLKMKL FHLTHLSDIGEGMDYIVKLSSEPCLDEEIQLVSCCLSANAVKIL  
AQNHLNLVKLSILDLSENYLEKDGNEALHELIDRMNVLEQLTALMLPWGCDVQGSLSLLKHL EEPQLV  
KLGLKNWRLTDTEIRILGAFFGKNPLKNFQQLNLAGNRVSSDGWLA FMGVFENLKQLVFFDFSTKEFLPD  
PALVRKLSQVLSKLTFLQEARLVGWQFDDDDL SVITGAFKLVTA

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6262\\_b03.zip](https://cdn.origene.com/chromatograms/mk6262_b03.zip)

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**


**ACCN:** NM\_021209

**ORF Size:** 3072 bp

**OTI Disclaimer:** 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

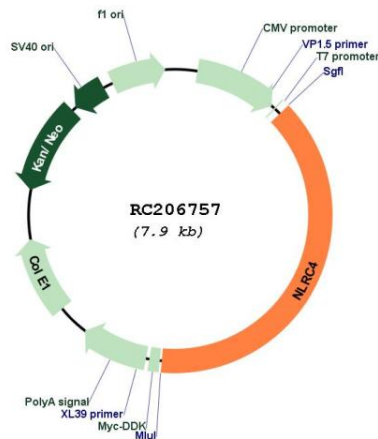
**RefSeq:** [NM\\_021209.4](#)

**RefSeq Size:** 3385 bp

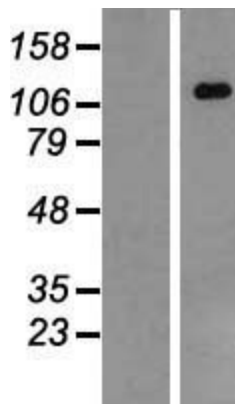
**RefSeq ORF:** 3075 bp  
**Locus ID:** 58484  
**UniProt ID:** [Q9NPP4](#)  
**Cytogenetics:** 2p22.3  
**Domains:** LRR  
**Protein Pathways:** NOD-like receptor signaling pathway  
**MW:** 116.2 kDa

**Gene Summary:** This gene encodes a member of the caspase recruitment domain-containing NLR family. Family members play essential roles in innate immune response to a wide range of pathogenic organisms, tissue damage and other cellular stresses. Mutations in this gene result in autoinflammation with infantile enterocolitis. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Oct 2014]

### Product images:



Circular map for RC206757



Western blot validation of overexpression lysate (Cat# [LY412012]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206757 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).