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Product datasheet for RC203759

CARD4 (NOD1) (NM_006092) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CARD4 (NOD1) (NM_006092) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CARD4
Synonyms:	CARD4; CLR7.1; NLRC1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC203759 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAAGAGCAGGGCCACAGTGAGATGGAAATAATCCCATCAGAGTCTCACCCCCACATTCAATTACTGA
AAAGCAATCGGGAACTTCTGGTCACTCACATCCGCAATACTCAGTGTCTGGTGGACAACTTGCTGAAGAA
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ATTCTGGACCTGGTACAGAGCAAGGGCGAGGAGGTGTCCGAGTTCTTCCTCTACTTGCTCCAGCAACTCG
CAGATGCCTACGTGGACCTCAGGCCTTGGCTGCTGGAGATCGGCTTCTCCCCTTCCCTGCTCACTCAGAG
CAAAGTCGTGGTCAACACTGACCCAGTGAGCAGGTATACCCAGCAGCTGCGACACCATCTGGGCCGTGAC
TCCAAGTTCGTGCTGTGCTATGCCCAGAAGGAGGAGCTGCTGCTGGAGGAGATCTACATGGACACCATCA
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CACCGGCATCCTCAATGAGCAGGGTGAGACCATCTTCATCCTGGGTGATGCTGGGGTGGGCAAGTCCATG
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ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC203759 protein sequence
Red=Cloning site Green=Tags(s)

MEEQGHSEMEIIPSESHPHIQLLKSNRELLVTHIRNTQCLVDNLLKNDYFSAEDAEIVCACPTQPDKVRK
ILDLVQSKGEEVSEFFLYLLQQLADAYVDLRPWLLEIGFSPSLLTQSKVVVNTDPVSRYTQQLRHHLGRD
SKFVLCYAQKEELLLEEIYMDTIMELVGFSNESLGSLNSLACLLDHTTGILNEQGETIFILGDAGVGKSM
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FTFDGLDELHSDLDLSRVPDSSCPWEPAHPLVLLANLLSGKLLKGASKLLTARTGIEVPRQFLRKKVLLR
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PFLPFQCLQGSGPAREDLFKNKDHFQFTNLFLCGLLSKAKQKLLRHLVPAAALRRKRKALWAHLFSSLRG
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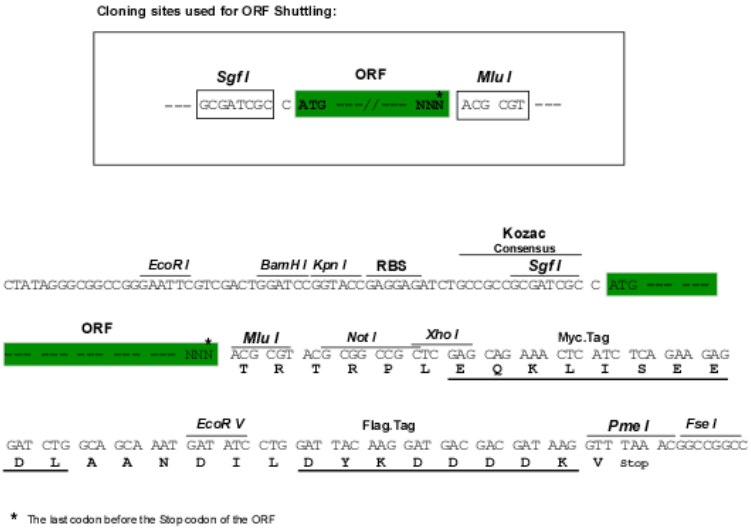
KGTAQLADALQSNTGITEICLNGNLIKPEEAKVYEDEKRIICF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6141_c08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

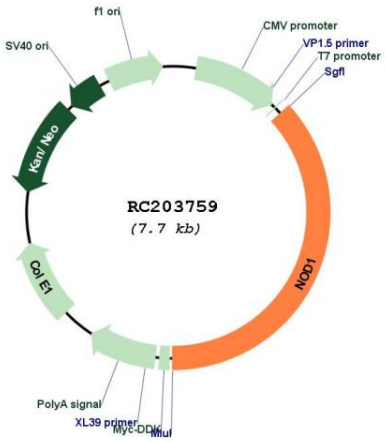


ACCN: NM_006092

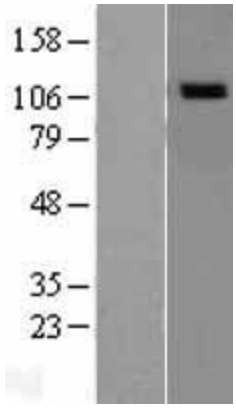
ORF Size: 2859 bp

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.
RefSeq:	NM_006092.4
RefSeq Size:	4506 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
MW:	107.7 kDa
Gene Summary:	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]

Product images:



Circular map for RC203759



Western blot validation of overexpression lysate (Cat# [LY401836]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203759 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).