

## Product datasheet for **RG203759**

### **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:	TurboGFP
Symbol:	CARD4
Synonyms:	CARD4; CLR7.1; NLRC1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG203759 representing NM\_006092  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGAAGAGCAGGGCCACAGTGAGATGGAATAATCCCATCAGAGTCTCACCCCCACATTCAATTACTGA  
 AAAGCAATCGGGAACCTTCTGGTCACTCACATCCGCAACTCAGTGTCTGGTGGACAACCTGCTGAAGAA  
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 CAAAGTCGTGGTCAACACTGACCCAGTGAGCAGGTATACCCAGCAGCTGCGACACCATCTGGGCCGTGAC  
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 TGGAGCTGGTTGGCTTCCAGCAATGAGAGCCTGGGCAGCCTGAACAGCCTGGCCTGCCTCTGGACCACAC  
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 AAGGGGACTGCCAGCTGGCAGATGCGTTACAGAGCAACACTGGCATAACAGAGATTTGCCTAAATGGAA  
 ACCTGATAAAAACAGAGGAGGCCAAAGTCTATGAAGATGAGAAGCGGATTATCTGTTTC

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:** >RG203759 representing NM\_006092  
Red=Cloning site Green=Tags(s)

```
MEEQGHSEMEIIPSESHPHIQLLKSRELLVTHIRNTQCLVDNLLKNDYFSAEDAEIVCACPTQPKVRK
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RDMQLGFLRALPELPGGGDQSYEFFHLTLQAFFTAFFLVDDRVTQELLRFFQEWMPAGAATTSCYP
PFLPFQCLQGGSPAREDLFKNKDHQFTNLFLCGLL SKAKQKLLRHLVPAALRRKRKALWAHLFSSLRG
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VGARYVTILDECKGLTHLKLGNKITSEGGKYLALAVKNSKSISEVGMWGNQVGDGAKAF AEALRNHP
SLTTLASLANGISTEGGKSLARALQQNTSLEILWLTQNELNDEVAESLAEMLKVNQTLKHLWLIQNQITA
KGTAQLADALQSNTGITEICLNGNLIKPEEAKVYEDEKRIICF
```

TRTRPLE – GFP Tag – V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

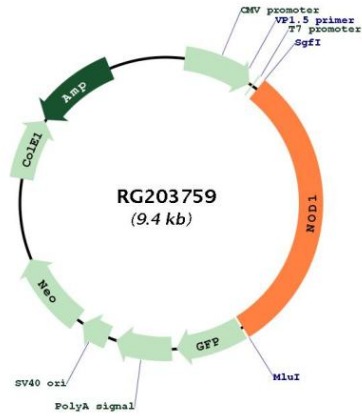


**ACCN:** NM\_006092

**ORF Size:** 2859 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_006092.1</a> , <a href="#">NP_006083.1</a>
<b>RefSeq Size:</b>	4390 bp
<b>RefSeq ORF:</b>	2862 bp
<b>Locus ID:</b>	10392
<b>UniProt ID:</b>	<a href="#">Q9Y239</a>
<b>Cytogenetics:</b>	7p14.3
<b>Domains:</b>	CARD, LRR, LRR_RI
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Epithelial cell signaling in Helicobacter pylori infection, NOD-like receptor signaling pathway
<b>Gene Summary:</b>	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 RG203759