

## Product datasheet for **MC217668**

### **Card9 (NM\_001037747) Mouse Untagged Clone**

#### **Product data:**

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids                       |
| Product Name:             | Card9 (NM_001037747) Mouse Untagged Clone |
| Tag:                      | Tag Free                                  |
| Symbol:                   | Card9                                     |
| Synonyms:                 | Gm782                                     |
| Mammalian Cell Selection: | Neomycin                                  |
| Vector:                   | pCMV6-Entry (PS100001)                    |
| E. coli Selection:        | Kanamycin (25 ug/mL)                      |



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**Fully Sequenced ORF:**

>MC217668 representing NM\_001037747

Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGC**

ATGTCAGACTATGAGAATGACGACGAGTCTGGAGCACCTGGAGAGCTTCGGGTGAAGCTCATCTCTG  
TCATTGACCCCTCCCGATCACACCCTATCTACGCCAGTGCAAAGTCCTGAACCCGATGATGAGGAGCA  
GGTGCTCAGTGACCCCAACCTGGTCATCCGCAAGCGAAAGTGGGTGTGCTCCTGGACATCCTGCAGCGG  
ACAGGCCACAAGGGCTACGTGGCTTTCTCGAGAGCCTGGAGCTCTACTACCCTCAGTTATACCGAAAG  
TCACTGGCAAGGAGCCAGCACGCGTCTTCTCCATGATCATTGATGCATCAGGGGAGTCTGGCCTGACGCA  
GCTGCTGATGACAGAGGTATGAAGCTGCAGAAGAAGTTTCAGGACCTGACGGCCTTCTGAGCTCCAAG  
GACGACTTCATCAAGGAGCTGAGGGTAAGGACAGCCTACTGCGCAAGCACCAGGAGCGGGTGCAGCGGC  
TCAAGGAGGAGTGTGAGCTGAGCAGTGGGAGCTGAAGCGCTGCAAGGACGAGAATATGAGCTGGCCAT  
GTGCTTGGCACATCTGAGTGAAGAGAAGGGCGCAGCACTATGCGGAACCGTGACCTGCAGCTTGAGGTG  
GACCGGCTCAGGCACAGCCTCATGAAGGCCGAGGATGACTGCAAGGTGGAGCGCAACACACACTGAAGC  
TCAGGCACGCCATGGAGCAGCGGCTAGTCAGGAGCTGCTGTGGGAACTACAGCAGGAAAAGGACTTGCT  
GCAGGCCCGGGTGCAGGAGCTGCAGGTCTCTGTGCAGGAGGGTAAGCTAGACAGGAATAGTCCATACATT  
CAAGTGCTGGAGGAGGACTGGCGTCAAGCACTGCAGGAACACCAGAAGCAGGTGACGACCATCTTCTCCC  
TACGGAAGGACCTCCGCCAGGCTGAGACCCTCCGGGCCGGTGCACGGAAGAAAAGGAGATGTTTCGAGCT  
GCAGTGCTGGCCTTGCACAAGGATGCCAAGATGTACAAGGACCGTATCGAGGCTATCCTGCTGCAGATG  
GAGGAGGTCTCCATTGAGAGGGACCAGGCTATGGCCTCCAGGGAAGAGCTGCATGCACAGTGTACCCAAA  
GCTTTCAGGACAAAGATAAGCTTCGAAAGCTGGTTCGAGAGCTGGGTGAGAAGGCAGATGAGCTGCAGCT  
ACAGCTGTTCCAGACGGAGAGCCGATTACTGGCCGCCGAGGGCAGACTCAAGCAGCAGCAATTGGACATG  
CTCATCTGAGCTCTGACTTGGAAGACAGTTACCCAGGAACTCCAGGAGCTCTCACTGCCTCAGGATC  
TGGAGGAGGATGCCAGCTCTCAGACAAAGGTGTACTGGCAGACAGGAGAGCCAGAGCAGCCCTTTAT  
GGCTCTGAACAAGGAGCATCTTTCAGTACCCATGGCATGGGGCCAGCAGCAGCGAGCCCCGGAGAAG  
GAGCGGCGGCGCCTCAAGGAGAGCTTCGAGAACTACCGCAGGAAGCGGGCGCTCCGCAAGATGCAGAAC  
GCTGGCGGCAGGAGAAGGGATCGCGGAATACGACAGGCAGCGACAACACCGACACCGAGGGCTCCTA  
G

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
TGGATTACAAGGATGACGACGATAAGGTTTAA

**Chromatograms:**

[https://cdn.origene.com/chromatograms/ja2304\\_c02.zip](https://cdn.origene.com/chromatograms/ja2304_c02.zip)

**Restriction Sites:**

Sgfl-RsrII

**ACCN:**

NM\_001037747

**Insert Size:**

1611 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

**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\\_001037747.1](#), [NP\\_001032836.1](#)

**RefSeq Size:** 1611 bp

**RefSeq ORF:** 1611 bp

**Locus ID:** 332579

**UniProt ID:** [A2AIV8](#)

**Cytogenetics:** 2 A3

**Gene Summary:**

Adapter protein that plays a key role in innate immune response to a number of intracellular pathogens, such as *C.albicans* and *L.monocytogenes*. Is at the crossroads of ITAM-tyrosine kinase and the Toll-like receptors (TLR) and NOD2 signaling pathways (PubMed:17514206). Probably controls various innate immune response pathways depending on the intracellular pathogen. Controls CLEC7A (dectin-1)-mediated myeloid cell activation induced by the yeast cell wall component zymosan, leading to cytokine production and innate anti-fungal immunity: acts by regulating BCL10-MALT1-mediated NF-kappa-B activation pathway. Activates NF-kappa-B via BCL10 (PubMed:16862125). In response to the hyphal form of *C.albicans*, mediates CLEC6A (dectin-2)-induced I-kappa-B kinase ubiquitination, leading to NF-kappa-B activation via interaction with BCL10 (PubMed:20538615). In response to *L.monocytogenes* infection, acts by connecting NOD2 recognition of peptidoglycan to downstream activation of MAP kinases (MAPK) without activating NF-kappa-B (PubMed:17187069). In response to fungal infection, may be required for the development and subsequent differentiation of interleukin 17-producing T helper (TH-17) cells (PubMed:17450144). Also involved in activation of myeloid cells via classical ITAM-associated receptors and TLR: required for TLR-mediated activation of MAPK, while it is not required for TLR-induced activation of NF-kappa-B (PubMed:17486093).[UniProtKB/Swiss-Prot Function]