

Product datasheet for **MG222633**

Card9 (NM_001037747) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Card9 (NM_001037747) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Card9
Synonyms:	Gm782
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG222633 representing NM_001037747
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCAGACTATGAGAATGACGACGAGTCTGGAGCACCTGGAGAGCTTCGGGTGAAGCTCATCTCTG
 TCATTGACCCCTCCCGATCACACCTATCTACGCCAGTGCAAAGTCTGAACCCCGATGATGAGGAGCA
 GGTGCTCAGTGACCCCAACCTGGTCATCCGCAAGCGAAAGTGGGTGTGCTCCTGGACATCCTGCAGCGG
 ACAGGCCACAAGGGCTACGTGGCTTTCTCGAGAGCTGGAGCTTACTACCCTCAGTTATACCGGAAAG
 TCACTGGCAAGGAGCCAGCACGCGTCTTCTCCATGATCATTGATGCATCAGGGGAGTCTGGCCTGACGCA
 GCTGCTGATGACAGAGTCAAGCTGCAGAAGAAGTTTCAGGACCTGACGGCCCTTCTGAGCTCCAAG
 GACGACTTCATCAAGGAGCTGAGGGTAAAGGACAGCCTACTGCGCAAGCACCAGGAGCGGGTGCAGCGGC
 TCAAGGAGGAGTGTGAGCTGAGCAGTGGGAGCTGAAGCGCTGCAAGGACGAGAATATGAGCTGGCCAT
 GTGCCCTGGCACATCTGAGTGAAGAGAAGGGCGCAGCACTCATGCGGAACCGTGACCTGCAGCTTGAGGTG
 GACCGGCTCAGGCACAGCCTCATGAAGGCCGAGGATGACTGCAAGGTGGAGCGCAAACACACACTGAAGC
 TCAGGCACGCCATGGAGCAGCGCCTAGTCAGGAGCTGCTGTGGGAACTACAGCAGGAAAAGGACTTGCT
 GCAGGCCCGGGTGCAGGAGCTGCAGGTCTCTGTGCAGGAGGGTAAGCTAGACAGGAATAGTCCATACATT
 CAAGTGTGGAGGAGGACTGGCGTCAAGCACTGCAGGAACACCAGAAGCAGGTCAGCACCATCTTCTCCC
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 GCAGTGCCTGGCCTTGCACAAGGATGCCAAGATGTACAAGGACCGTATCGAGGCTATCCTGCTGCAGATG
 GAGGAGTCTCCATTGAGAGGGACCAGGCTATGGCTCCAGGGAAGAGCTGCATGCACAGTGTACCCAAA
 GCTTTCAGGACAAAGATAAGCTTCGAAAGCTGGTTCGAGAGCTGGGTGAGAAGGCAGATGAGCTGCAGCT
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 CTCATCTGAGCTCTGACTTGAAGACAGTTCACCCAGGAACTCCAGGAGCTCTCACTGCCTCAGGATC
 TGGAGGAGGATGCCAGCTCTCAGACAAAGGTGTACTGGCAGACAGGGAGAGCCAGAGCAGCCCTTTAT
 GGCTCTGAACAAGGAGCATCTTTCAGTACCCATGGCATGGGGCCAGCAGCAGCGAGCCCGGAGAAG
 GAGCGGCGGCCTCAAGGAGAGCTTCGAGAATACCGCAGGAAGCGGGCGCTCCGCAAGATGCAGAACA
 GCTGGCGGCAGGAGAAGGGATCGCGGAATACGACAGGCAGCGACAACACCGACACCGAGGGCTCC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG222633 representing NM_001037747
 Red=Cloning site Green=Tags(s)

MSDYENDDCWSTLESFRVKLISVIDPSRITPYLRQCKVLNPDDEEQVLSDPNLVIRKRKVGVLDDILQR
 TGHKGYVAFLESLELYPQLYRKVTGKEPARVFSMIIDASGESGLTQLLMTEVMKLQKKVQDLTALLSSK
 DDFIKELRVKDSLRLKHQERVQRLKEECELSSAELKRCCKDENYELAMCLAHLSEEKGAALMRNRDLQLEV
 DRRLRHSLMKAEDDCKVERKHTLKL RHAMEQRPSQELLWELQEQKDLLQARVQELQVSVQEGKLDNRNYPYI
 QVLEEDWRQALQEHQKQVSTIFSLRKDLRQAETLRARCTEEKEMFELQCLALRKDAKMYKDRIEAILLQM
 EEVSIERDQAMASREELHAQCTQSFQDKDLRKL VRELGEKADELQLQLFQTESRLLAAEGRLKQQQLDM
 LILSSDLEDSSPRNSQELSLPQDLEEDAQLSDKGVLADRESPEQPFMALNKEHLSLTHGMGPSSEPPEK
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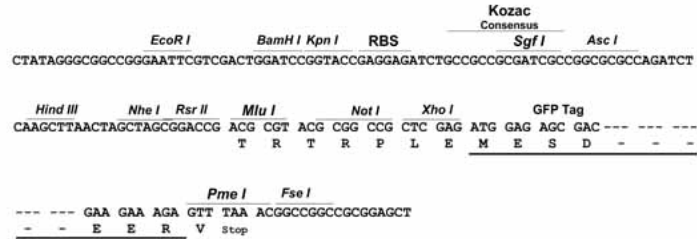
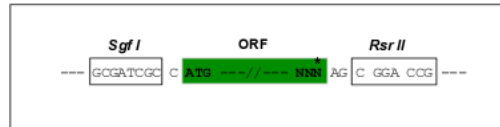
SGP**TRRRLE** - GFP Tag - V

Restriction Sites:

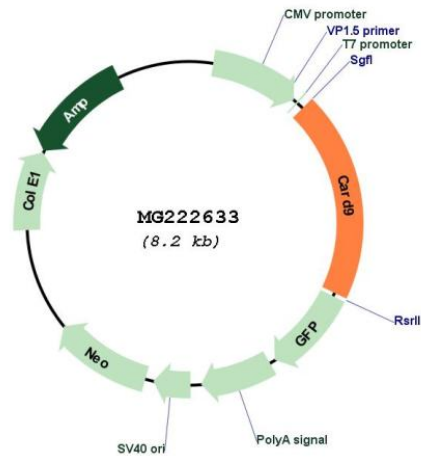
Sgfl-RsrII

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN:	NM_001037747
ORF Size:	1608 bp
OTI Disclaimer:	<p>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 or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
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:	<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_001037747.3
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]