

Product datasheet for **MG227011**

Tlr9 (NM_031178) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Tlr9 (NM_031178) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Tlr9
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG227011 representing NM_031178 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCC**CGATCGCC**

ATGGTTCTCCGTCGAAGGACTCTGCACCCCTTGTCCCTCCTGGTACAGGCTGCAGTGTGGCTGAGACTC
TGGCCCTGGGTACCCTGCCTGCCTTCTACCCTGTGAGCTGAAGCCTCATGGCCTGGTGGACTGCAATTG
GCTGTTCTGAAGTCTGTACCCCGTTTCTCTGCGGCAGCATCTGCTCCAACATCACCCGCTCTCCTTG
ATCTCCAACCGTATCCACCACCTGCACAACCTGACTTCGTCCACCTGTCCAACCTGCGGCAGCTGAACC
TCAAGTGAACCTGTCCACCACCTGGCCTTAGCCCTGCACTTCTCTTGCCACATGACCATTGAGCCGAG
AACCTTCCCTGGCTATGCGTACACTGGAGGAGCTGAACCTGAGCTATAATGGTATCACCACTGTGCCCGA
CTGCCAGCTCCCTGGTGAATCTGAGCCTGAGCCACACCAACATCCTGGTTCTAGATGCTAACAGCCTCG
CCGGCCTATACAGCCTGCGGTTCTCTTCATGGACGGAACTGCTACTACAAGAACCCTGCACAGGAGC
GGTGAAGGTGACCCAGGCGCCCTCCTGGGCTGAGCAATCTCACCCATCTGTCTCTGAAGTATAACAAC
CTCACAAGGTGCCCCGCAACTGCCCCAGCCTGGAGTACCTCCTGGTGTCTATAACCTCATTGTCA
AGCTGGGGCTGAAGACCTGGCCAATCTGACCTCCCTTCGAGTACTTGATGTGGGTGGGAATTGCCGTCG
CTGTGACCATGCCCCAATCCCTGTATAGAATGTGGCCAAAAGTCCCTCCACCTGCACCCCTGAGACCTTC
CATCACCTGAGCCATCTGGAAGGCTGGTGTGAAGGACAGCTCTCTCCATACACTGAACCTTCTCCTGGT
TCCAAGGTCTGGTCAACCTCTCGGTGCTGGACCTAAGCGAGAACCTTCTCTATGAAAGCATCACCCACAC
CAATGCCTTTAGAACCTAACCCGCTGCGCAAGCTCAACCTGTCTTCAATTACCGCAAGAAGGTATCC
TTTGCCCGCTCCACCTGGCAAGTTCCTTTAAGAACCTGGTGTCACTGCAGGAGCTGAACATGAACGGCA
TCTTCTCCGCTTGTCTCAACAAGTACACGCTCAGATGGCTGGCCGATCTGCCCAAACCTCCACACTCTGCA
TCTTCAAATGAACCTCATCAACCAGGCACAGCTCAGCATCTTTGGTACCTTCGAGCCCTTCGCTTTGTG
GACTTGTGAGACAATCGCATCAGTGGGCTTCAACGCTGTGAGAGCCACCCCTGAAGAGGCAGATGATG
CAGAGCAGGAGGAGCTGTTGTCTGCGGATCCTCACCCAGCTCCGCTGAGCACCCCTGCTTCTAAGAACTT
CATGGACAGGTGAAGAACTTCAAGTTCACCATGGACCTGTCTCGGAACAACCTGGTACTCAAGCCA
GAGATGTTTGTCAATCTCTCACGCTCCAGTGTCTTAGCCTGAGCCACAACCTCCATTGACAGGCTGTCA
ATGGCTCTCAGTTCCTGCCGCTGACTAATCTGCAGGTGCTGGACCTGTCCATAACAACCTGGACTTGTA



[View online >](#)

CCACTGGAATCGTTCAGTGAGCTACCACAGTTGCAGGCCCTGGACCTGAGCTACAACAGCCAGCCCTTT
 AGCATGAAGGGTATAGGCCACAATTTTCAGTTTTGTGACCCATCTGTCCATGCTACAGAGCCTTAGCCTGG
 CACACAATGACATTACATACCCGTGTGCTCCTCACATCTCAACAGCAACTCAGTGAGGTTTCTTGACTTCAG
 CGGCAACGGTATGGGCCGCATGTGGGATGAGGGGGGCCTTTATCTCCATTTCTTCAAGGCCTGAGTGCC
 CTGCTGAAGCTGGACCTGTCTAAAATAACCTGCATATCCTCCGGCCCCAGAACCTTGACAACTCCCA
 AGAGCCTGAAGCTGCTGAGCCTCCGAGACAACCTACCTATCTTTCTTAACTGGACCAGTCTGTCTCTCT
 ACCCAACCTGGAAGTCTAGACCTGGCAGGCAACCAGCTAAAGGCCCTGACCAATGGCACCTGCCTAAT
 GGCAACCTCCTCCAGAACTCGATGTAGTACAGCAACAGTATCGTCTGTGGTCCCAGCCTTCTTGCTC
 TGGCGGTGAGCTGAAAGAGGTCAACCTCAGCCACAACATTCTCAAGACGGTGGATGCTCCTGGTTTGG
 GCCATTGTGATGAACCTGACAGTTCTAGACGTGAGAAGCAACCCTTGCACTGTGCCTGTGGGGCAGCC
 TTCGTAGACTTACTGTTGGAGGTGCAGACCAAGGTGCCTGGCCTGGCTAATGGTGTGAAGTGTGGCAGCC
 CCGGCCAGCTGCAGGGCCGTAGCATCTTCGCGCAGGACCTGCGGCTGTGCCTGGATGAGTCTCTCTTG
 GGACTGCTTTGCCTTTCACTCTGGCTGTGGCCGTGGCATGGTGGTGCCTATACTGCACCATCTCTGC
 GGCTGGGACGTCTGGTACTGTTTTATCTGTGCCTGGCATGGCTACCTTTGCTAGCCCGCAGCCGACGCA
 GCGCCAAACTCTCCCTATGATGCCTTGTGGTGTTCGATAAGGCACAGAGCGCAGTTGCCGACTGGGT
 GTATAACGAGCTGCGGGTGCAGGCTGGAGGAGCGCGCGCGCCGAGCCCTACGCTTGTGTCTGGAGGAC
 CGAGATTGGCTGCCTGGCCAGACGCTCTTCGAGAACCTCTGGGCTTCCATCTATGGGAGCCGAAGACTC
 TATTTGTGCTGGCCACACGGACCGCTCAGTGGCCTCCTGCGCACACAGCTTCTGCTGGCTCAGCAGCG
 CCTGTTGGAAGACCGCAAGGACGTGGTGGTGTGGTGTATCCTGCGTCCGGATGCCACCGCTCCCCTAT
 GTGCGACTGCGCCAGCGTCTCTGCCCCAGAGTGTGCTCTTGGCCCCAGCAGCCCAACGGGCAGGGGG
 GCTTCTGGGCCAGCTGAGTACAGCCCTGACTAGGGACAACCGCCACTTCTATAACCAGAAGTCTGCCC
 GGGACCTACAGCAGAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG227011 representing NM_031178
 Red=Cloning site Green=Tags(s)

MVLRRTLHPLSLLVQAAVLAETLALGTLPAFLPCELKPHGLVDCNWLFLKSVPRFSAASCSNITRLSL
 ISNRIHHLHNSDFVHLSNLRQLNLKWNCPPTGLSPLHFSCHMTIEPRTFLAMRTLEELNLSYNGITTVPR
 LPSSLVNLSLHTNIVLDANSLAGLYSLRVLFMDGNCYKPNPCTGAVKVTGPALLGLSNLTHLSLKYYN
 LTKVPRQLPPSLEYLLVSYNLIVKLGPELANLTSLRVLDVGGNCRCDHAPNPCI ECGQKSLHHPETF
 HHLSHLEGLVLDSSLHTLNSSWFQGLVNLVLDLSENFYESITHNAFQNLTRLRKLNL SFNYRKKVS
 FARLHLASSFNKLVSLQELNMGIFFRLLNKYTLRWLADLPKLHLHLQMNFINQAQLSIFGTFRALRFV
 DLSDNRI SGPSTLSEATPEEADDAEQEELL SADPHAPLSTPASKNFMDRCKNFKFTMDLSRNNLVTIKP
 EMFVNL SRLQCLSL SHNSIAQAVNGSQFLPLTNLQVLDL SHNKL DLYHWKSF SELPQLQALDL SYNSQPF
 SMKGIGHNFSFVTHLSMLQSLSLAHNDIHTRVSSHLNSNSVRFLDFSGNGMGRMWDEGGLYLHFFQGLSG
 LLKLDLSQNNLHILRPQNL DNLPKSLKLLSLRDNYL SFFNWTLSFLPNLEVL DLAGNQLKAL TNGTLPN
 GTLLQKLDVSSNSIVSVPAFFALAVELKEVNLSHNILKTVDRSWFGPIVMNLTVLDVRSNPLHCACGAA
 FVDLLLEVQTKVPGLANGVKCGSPGQLQGRSIFAQDLRLCLDEVLSWDCFGLSLLAVAVGMVPIHLHLC
 GWDVWYCFHLCLAWLPLLARSRRSAQTLPYDAFVVFDKAQSADWVYNELRVLEERRGRRALRLCLED
 RDWLPGQTLFENLWASIYGRKTLFVLAHTDRVSGLLRTSFLLAQQRLLEDKDVVVLVILRPDAHRSRY
 VRLRQLCRQSVLFWPQQPNGQGGFWAQLSTALTRDNRHFYNQNF CRGPTAE

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_031178

ORF Size: 3096 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 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](#)

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_031178.2](#), [NP_112455.2](#)

RefSeq Size: 3471 bp

RefSeq ORF: 3099 bp

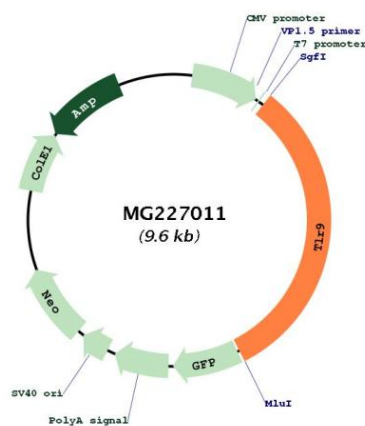
Locus ID: 81897

UniProt ID: [Q9EQU3](#)

Cytogenetics: 9 F1

Gene Summary: Key component of innate and adaptive immunity. TLRs (Toll-like receptors) control host immune response against pathogens through recognition of molecular patterns specific to microorganisms. TLR9 is a nucleotide-sensing TLR which is activated by unmethylated cytidine-phosphate-guanosine (CpG) dinucleotides. Acts via MYD88 and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response (PubMed:18931679, PubMed:21402738, PubMed:14993594, PubMed:17474149, PubMed:25686612, PubMed:18820679). Plays a role in defense against systemic mouse cytomegalovirus infection (PubMed:14993594). Controls lymphocyte response to Helicobacter infection (PubMed:17474149). Upon CpG stimulation, induces B-cell proliferation, activation, survival and antibody production (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG227011