

Product datasheet for **MR227674**

Tlr2 (NM_011905) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Tlr2 (NM_011905) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Tlr2
Synonyms:	Ly105
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>MR227674 representing NM_011905
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCTACGAGCTCTTTGGCTCTTCTGGATCTTGGTGGCCATAACAGTCTCTTCAGCAAACGCTGTTCTG
 CTCAGGAGTCTCTGTATGTGATGCTTCTGGGGTGTGTATGGCCGCTCCAGGTCTTTCACCTCTATTCC
 CTCGGACTCACAGCAGCCATGAAAAGCCTTGACCTGTCTTTCAACAAGATCACCTACATTGGCCATGGT
 GACCTCCGAGCGTGTGCGAACCTCCAGTTCTGATGTTGAAGTCCAGCAGAATCAATACAATAGAGGGAG
 ACGCCTTTTATTCTCTGGGCAGTCTTGAACATTTGGATTGTCTGATAATCACCTATCTAGTTTATCTTC
 CTCCTGGTTGGGCCCTTTCTCTTTGAAATACTTAACTTAATGGGAAATCCTTACCAGACACTGGGG
 GTAACATCGCTTTTCCCAATCTCACAATTTACAAACCCTCAGGATAGGAAATGTAGAGACTTTCAGTG
 AGATAAGGAGAATAGATTTTGTGGGCTGACTTCTCTCAATGAACTTGAATTAAGGCATTAAGTCTCCG
 GAATTATCAGTCCCAAAGTCTAAAGTCGATCCGCGACATCCATCACCTGACTTCTCACTTAAGCGAGTCT
 GCTTTCCTGCTGGAGATTTTGCAGATATTCTGAGTTCTGTGAGATATTTAGAACTAAGAGATACTAACT
 TGGCCAGGTTCCAGTTTTACCCTGCCCCTAGATGAAGTCAGCTCACCGATGAAGAAGCTGGCATTCCG
 AGGCTCGGTTCTCACTGATGAAAGCTTTAACGAGCTCCTGAAGCTGTTGCGTTACATCTTGGAACTGTGCG
 GAGGTAGAGTTCGACGACTGTACCCTCAATGGGCTCGGCGATTTCAACCCTCGGAGTCAGACGTAGTGA
 GCGAGCTGGGTAAGTAGAAACAGTCACTATCCGGAGGTTGCATATCCCCAGTTCTATTTGTTTTATGA
 CCTGAGTACTGTCTATCCCTCCTGGAGAAGGTGAAGCGAATCACAGTAGAGAACAGCAAGGCTTCCCTG
 GTTCCCTGCTCGTTCTCCAGCATTTAAAATCATTAGAATCTTAGACCTCAGCGAAAATCTGATGGTTG
 AAGAATATTTGAAGAATCAGCCTGTAAGGGAGCCTGGCCTTCTCTACAAACCTTAGTTTTGAGCCAGAA
 TCAATTTGAGATCAATGCAAAAAACAGGAGAGATTTTGTGACTCTGAAAAACCTGACCTCTCTTGACATC
 AGCAGGAACACTTTTCCATCCGATGCCCGACAGCTGTGAGTGGCCAGAAAAGATGCGCTTCTGAATTTGT
 CCAGTACAGGGATCCGGGTGGTAAAAACGTGCATTCTCAGACGCTGGAGGTGTTGGATGTTAGTAACAA
 CAATCTTGACTCATTTTCTTTGTTCTTGCTCGGCTGCAAGAGCTCTATATTTCCAGAAAATAGCTGAAA
 ACACTCCAGATGCTTCGTTGTTCCCTGTGTTGCTGGTCATGAAAATCAGAGAGAATGCAGTAAGTACTT
 TCTCTAAAGACCAACTTGGTTCTTTCCAAACTGGAGACTCTGGAAGCAGGCGACAACCACTTTGTTTG
 CTCCTGCGAACTCTATCTTTACTATGGAGACGCCAGCTCTGGCTCAAATCCTGGTTGACTGGCCAGAC
 AGCTACCTGTGTGACTCTCCGCCTGCCTGCACGCCACAGGCTTCAGGATGCCCGGCCCTCCGTCTTGG
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 CCTGTGCCACCATTTCCACGGACTGTGGTACCTGAGAATGATGTGGGCGTGGCTCCAGGCCAAGAGGAAG
 CCCAAGAAAGCTCCCTGCAGGGACGTTTGTATGATGCCTTTGTTTCTACAGTGAGCAGGATCCCAT
 GGGTGGAGAACCTCATGGTCCAGCAGCTGGAGAATCTGACCCGCCCTTTAAGCTGTGTCTCCACAAGCG
 GGACTTCGTTCCGGGCAATGGATCATTGACAACATCATCGATTCCATCGAAAAGAGCCACAAAACCTGTG
 TTCGTGCTTTCTGAGAACTTCGTACGGAGCGAGTGGTGAAGTACGAAGTGGACTTCTCCCACTTCAGGC
 TCTTTGACGAGAACACGACGCGCCATCCTGTTTTGCTGGAGCCATTGAGAGGAAAGCCATTCCCA
 GCGCTTCTGCAAACTGCGCAAGATAATGAACACCAAGACCTACCTGGAGTGGCCCTTGATGAAGGCCAG
 CAGGAAGTGTGTTGGGTAATCTGAGAACTGCAATAAAGTCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR227674 representing NM_011905
Red=Cloning site Green=Tags(s)

MLRALWLFWILVAITVLFKRCSAQESLSCDASGVCDGRSRSFTSIPSGLTAAMKSLDLSFNKITYIGHG
DLRACANLQVLMKSSRINTIEGDAFYSLGSLEHLDSLNDLSSLSSSWFGPLSSLKYLNLMGNPYQTLG
VTSLFPNLTNLQTLRIGNVETFSEIRRIDFAGL TSLNELEIKALSLRNYQSQSLKSIRDIIHHLTLHLS
AFLL EIFADILSSVRYLELRDTNLARFQFSPLPVDEVSSPMKKLAFRGSVLTDESFNELLKLLRYIELS
EVEFDCTLNGLGDFNPSESDVSELGKVETVTIRRLHIPQFYLYDLSTVYSSLLEKVKRITVENSKVFL
VPCSFSQHLKSLEFLDLSENLMVEEYLNKNSACKGAWPSLQTLVLSQNHLSRMQKTGEILLTLKNLTSLDI
SRNTFHPMPDSCQWPEKMRFLNLSSTGIRVVKTCIPQTLEVL DVSNNDLSDSFLPRLQELYISRNLK
TLPDASLFPVLLVMKIRENAVSTFSKDQLGSFPKLETLEAGDNHFVCSCELLSFTMETPALAQILVDWPD
SYLCDSPPRLHGHRLQDARPSVLECHQAALVSGVCCALLLLILLV GALCHHFHGLWYLRMMAWLQAKRK
PKKAPCRDVCYDAFVSYSEQDSHWVENLMVQLENSDPPFKLCLHKRDFVPGKWIIDNIIDSIEKSHKTV
FVLS ENFVRSEWCKYELDFSHFRLFDENNDAAILVLEPIERKAIPQRFCKLRKIMNTKTYLEWPLDEGQ
QEVFWVNLRTAIKS

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9013_b05.zip

Restriction Sites: Sgfl-Mlul

Cloning Scheme:



ACCN: NM_011905

ORF Size: 2352 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_011905.3](#), [NP_036035.3](#)

RefSeq Size: 2874 bp

RefSeq ORF: 2355 bp

Locus ID: 24088

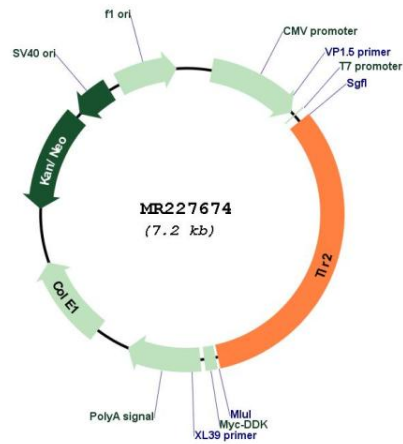
UniProt ID: [Q9QUN7](#)

Cytogenetics: 3 E3

MW: 89.9 kDa

Gene Summary: Cooperates with LY96 to mediate the innate immune response to bacterial lipoproteins and other microbial cell wall components. Cooperates with TLR1 or TLR6 to mediate the innate immune response to bacterial lipoproteins or lipopeptides. Acts via MYD88 and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response (By similarity) (PubMed:15690042). May also promote apoptosis in response to lipoproteins (By similarity). Forms activation clusters composed of several receptors depending on the ligand, these clusters trigger signaling from the cell surface and subsequently are targeted to the Golgi in a lipid-raft dependent pathway. Forms the cluster TLR2:TLR6:CD14:CD36 in response to diacylated lipopeptides and TLR2:TLR1:CD14 in response to triacylated lipopeptides (By similarity). Recognizes M.tuberculosis major T-antigen EsxA (ESAT-6) which inhibits downstream MYD88-dependent signaling (PubMed:17486091). Acts as the major receptor for M.tuberculosis lipoproteins LprA, LprG, LpqH and PhoS1 (pstS1), in conjunction with TLR1 and for some but not all lipoproteins CD14 and/or CD36. The lipoproteins act as agonists to modulate antigen presenting cell functions in response to the pathogen (PubMed:19362712). Recombinant MPT83 from M.tuberculosis stimulates secretion of cytokines (TNF-alpha, IL-6 and IL-12p40) by mouse macrophage cell lines in a TLR2-dependent fashion, which leads to increased host innate immunity responses against the bacterium (PubMed:22174456). Lung macrophages which express low levels of TLR2 respond poorly to stimulation by M.tuberculosis LpqH (PubMed:19362712). Required for normal uptake of M.tuberculosis, a process that is inhibited by M.tuberculosis LppM (PubMed:27220037). Interacts with TICAM2 (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR227674