

Product datasheet for **SC114214**

TLR7 (NM_016562) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: TLR7 (NM_016562) Human Untagged Clone
Tag: Tag Free
Symbol: TLR7
Synonyms: IMD74; TLR7-like
Mammalian Cell Selection: None
Vector: pCMV6-XL5
E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_016562 edited
GAATTCGGCACGAGGCCAGATATAGGATCACTCCATGCCATCAAGAAAGTTGATGCTATT
GGGCCATCTCAAGCTGATCTTGGCACCTCTCATGCTCTGCTCTTCAACCAGACTCT
ACATTCATTTTTGGAAGAAGACTAAAAATGGTGTTCATGTGGACACTGAAGAGACAA
ATTCTTATCCTTTTTAACATAATCCTAATTTCCAACTCCTGGGGCTAGATGGTTTCCT
AAAACCTGCCCCTGTGATGCTACTCTGGATGTTCCAAAGAACCATGTGATCGTGGACTGC
ACAGACAAGCATTGACAGAAATTCCTGGAGGTATCCCACGAACACCACGAACCTCACC
CTCACCATTAACCACATACCAGACATCTCCCCAGCGTCTTTACAGACTGGACCATCTG
GTAGAGATCGATTCAGATGCAACTGTGTACCTATCCACTGGGGTCAAAAAACAACATG
TGCATCAAGAGGCTGCAGATTAACCCAGAAGCTTTAGTGGACTCACTTATTTAAATCC
CTTTACCTGGATGAAACCAGCTACTAGAGATACCGCAGGGCCTCCCGCTAGCTTACAG
CTTCTCAGCCTTGAGGCCAACAACTCTTTTCCATCAGAAAAGAGAATCTAACAGAACTG
GCCAACATAGAAATACTCTACCTGGGCCAAAACCTGTTATTATCGAAATCCTTGTTATGTT
TCATATTCATAGAGAAAGATGCCTTCTAAACTTGACAAAAGTTAAAAGTCTCTCCCTG
AAAGATAACAATGTCACAGCCGTCCTACTGTTTTGCCATCTACTTTAACAGAATATAT
CTCTACAACAACATGATTGCAAAAATCCAAGAAGATGATTTAATAACCTCAACCAATTA
CAAATTCCTGACCTAAGTGAAATGCCCCTCGTTGTTATAATGCCCATTTCTCTGTGCG
CCGTGTAATAAATAATCTCCCCTACAGATCCCCTGTAATGCTTTTGATGCGCTGACAGAA
TTAAAAGTTTTACGTCTACACAGTAACCTCTTTCAGCATGTGCCCAAGATGGTTTAAG
AACATCAACAAAACCTCAGGAACCTGGATCTGTCCAAAACCTCTTGCCAAAGAAATGGG
GATGCTAAATTTCTGCATTTTCTCCCCAGCCTCATCCAATTGGATCTGTCTTTCAATTTT
GAACCTCAGGTCTATCGTGCATCTATGAATCTATCACAAGCATTCTTCACTGAAAAGC
CTGAAAATTCGCGGATCAGAGGATATGTCTTTAAAGAGTTGAAAAGCTTTAACCTCTCG
CCATTACATAATCTTCAAAATCTTGAAGTTCTTGATCTTGGCACTAAGTTATAAAAAAT
GCTAACCTCAGCATGTTTAAACAATTTAAAAGACTGAAAGTCATAGATCTTTCAGTGAAT
AAAATATCACCTCAGGAGATTCAGTGAAGTTGGCTTCTGCTCAATGCCAGAACTTCT
GTAGAAAGTTATGAACCCAGGTCCTGGAACAATTACATTATTTTCAGATATGATAAGTAT



[View online >](#)

GCAAGGAGTTGCAGATTCAAAAACAAAGAGGCTTCTTTCATGTCTGTTAATGAAAGCTGC
TACAAGTATGGGCAGACCTTGGATCTAAGTAAAAATAGTATATTTTTTGTCAAGTCTCT
GATTTTCAGCATCTTCTTCTCCTCAAATGCCTGAATCTGTGAGGAAATCTCATTAGCCAA
ACTCTTAATGGCAGTGAATTCACCTTTAGCAGAGCTGAGATATTTGGACTTCTCCAAC
AACCGGCTTGATTTACTCCATTCACAGCATTGGAAGAGCTTACAAAACCTGGAAGTTCTG
GATATAAGCAGTAATAGCCATTATTTCAATCAGAAGGAATTAATCATATGCTAAACTTT
ACCAAGAACCTAAAGTTCTGCAGAACTGATGATGAACGACAATGACATCTCTTCTCC
ACCAGCAGGACCATGGAGAGTGAGTCTCTTAGAACTCTGGAATTCAGAGGAAATCACTTA
GATGTTTTATGGAGAGAAGGTGATAACAGATACTTACAATTATTCAAGAATCTGTAAAA
TTAGAGGAATTAGACATCTCTAAAAATCCCTAAGTTTCTTGCCTTCTGGAGTTTTTGAT
GGTATGCCTCAAATCTAAAGAATCTCTCTTTGGCCAAAAATGGGCTCAAATCTTTCAGT
TGAAGAAGAACTCCAGTGTCTAAAGAACCTGGAACCTTTGGACCTCAGCCACAACCAACTG
ACCACTGTCCCTGAGAGATTATCCAAGTGTCCAGAAGCCTCAAGAATCTGATTCTTAAG
AATAATCAAATCAGGAGTCTGACGAAGTATTTTCTACAAGATGCCTTCCAGTTGCGATAT
CTGGATCTCAGCTCAAATAAAATCCAGATGATCCAAAAGACCAGCTTCCCAGAAAATGTC
CTCAACAATCTGAAGATGTTGCTTTTGATCATATCGGTTTCTGTGCACCTGTGATGCT
GTGTGGTTTTGCTGGTGGTTAACCATACGGAGGTGACTATTCCTTACCTGGCCACAGAT
GTGACTTGTGTGGGGCCAGGAGCACACAAGGGCCAAAGTGTGATCTCCCTGGATCTGTAC
ACCTGTGAGTTAGATCTGACTAACCTGATTCTGTTCTCACTTTCCATATCTGTATCTCTC
TTTCTCATGGTGATGATGACAGCAAGTCACTCTATTTCTGGGATGTGTGGTATATTTAC
CATTTCTGTAAAGCCAAAGATAAAGGGGTATCAGCGTCTAATATCACCAGACTGTTGCTAT
GATGCTTTTATTGTGTATGACACTAAAGACCCAGCTGTGACCGAGTGGTTTTGGCTGAG
CTGGTGGCCAAACTGGAAGACCCAAGAGAGAAACATTTTAAATTTATGTCTCGAGGAAAGG
GACTGGTTACCAGGGCAGCCAGTTCTGGAAAACCTTTCCAGAGCATAACAGCTTAGCAAA
AAGACAGTGTGTGATGACAGACAAGTATGCAAAGACTGAAAATTTTAAAGATAGCATT
TACTTGTCCCATCAGAGGCTCATGGATGAAAAAGTTGATGTGATTATCTTGATATTTCTT
GAGAAGCCCTTTCAGAAGTCCAAGTTCTCCAGCTCCGAAAAGGCTCTGTGGGAGTTCT
GTCCTTGAGTGGCCAACAACCCGCAAGCTCACCCATACTTCTGGCAGTGTCTAAAGAAC
GCCCTGGCCACAGACAATCATGTGGCCTATAGTCAGGTGTTCAAGGAAACGGTCTAGCCC
TTCTTTGCAAAACACAACCTGCCTAGTTTACCAAGGAGAGGCTGGCTGTTTAAATGTTT
TCATATATATCACACAAAAGCGTGTGTTTAAAATCTTCAAGAAATGAGATTGCCATAT
TTCAGGGGAGCCACCAACGTCTGTACAGGAGTTGAAAAGATGGGTTTTATATAATGCAT
CAAGTCTTCTTCTTATCTCTGTGTCTCTATTTGCACTTGAGTCTCTCACCTCAGCTC
CTGTAAGAGAGTGGCAAGTAAAAACATGGGGCTCTGATTCTCCTGTAATTGTGATAATT
AAATATACACACAATCATGAAA
AAAAAAAAAAAAAAAAAACTCGAC

5' Read Nucleotide Sequence:	>OriGene 5' read for NM_016562 unedited GTAAGATAGAATTGTATACCACTCATATAGGCGGCCGACGAATTCGCACGAGGCCAGNAA TAGGATCACTCCATGCCATCAAGAAAGTTGATGCTATTGGGCCATCTCAAGCTGATCTT GGCACCTCTATGCTCTGCTCTCTTCAACCAGACCTCTACATTCATTTTGAAGAAGAC TAAAAATGGTGTTCCTAATGTGGACACTGAAGAGACAAATCTTATCCTTTTTAACATAA TCCTAATTTCCAAACTCCTTGGGGCTAGATGGTTTCTAAAACCTGCCCCTGTGATGTCA CTCTGGATGTTCCAAAGAACCATGTGATCGTGGACTGCACAGACAAGCATTGACAGAAA TTCTGGAGGTATCCACGAACACCACGAACCTCACCTCACCATTAACCACATACCAG ACATCTCCCCAGCGTCTTTTACAGACTGGACCATCTGGTAGAGATCGATTTTTCAGATGCA ACTGTGTACCTATTCCACTGGGGTCAAAAAACAACATGTGCATCAAGAGGCTGCAGATTA AACCCAGAAGCTTTAGTGGACTCACTTATTTAAAATCCCTTTACCTGGATGGAACCAGC TACTAGAGATACCGCAGGGCCTCCCGCTAGCTTACAGCTTCTCAGCCTTGAGGCCAACA ACATCTTTTCCATCAGAAAAGAGAATCTAACAGAACTGGCCAACATAGAAATACTCTACC TGGGCCAAAACCTGTTATTATCGAAATCCCTTGTATGTTTCAATAGAGAAAAGATG CCTTTTCTAACTTGACAAGTTAAAAGTGCTCTCCCTGAAAGATAACATGTCACAGCCGTC CCTACTGNTTGGCATCTACTTAAACAGAACTATATCTCTACACAACATGATTTGCAAA CCAGC
3' Read Nucleotide Sequence:	>OriGene 3' read for NM_016562 unedited GGTGTATTTTATTTTACATTACAGGNANATCAGAGCCCCTGTTTTTACTTGCCACTCTT TTACAGGAGCTGAGGTGAGAGACTCAAGTGCAAATAGAGACACAGAGAGATAAGAAAGAA GACTTGATGCATTATATAAACCCCATCTTTCCAACCTCTGTGACAGACGTTGGTGGCTCC CCTGAAATATGGGCAATCTCATTCTTGAAGAATTTCAAACACGCTTTTGGTGTGATAT ATATGAAAACAATTTAAACAGCCAGGCCTCTCCTTGGTAAACTAGGCAGTTGTGTTTTGC AAAGAAGGGCTAGACCGTTTCTTGAACACCTGACTATAGGCCACATGATTGTCTGTGGC CAGGGCGTTCTTTAGACACTGCCAGAAGTATGGGTGAGCTCGCGGGTTTGTGGCCACTC AAGGACAGAACTCTCACATAGCCTTTTCCGGAGCTGGAGGAACCTGGACTCTGAAAGGG CTTCTCAAGTAATATCANNCCCCATCCATTAACTTTTTCATCCCTGACCCTCTGATGGCAC ATGTTAAACGCTTTCTTAAAATATTTACTCTTCGCATACTCGTCTGTCATTACAACCCTG TCTTCATCGTNAACGCATGCTTTTCGGCATGGCCTCCCACACCTGGCTTCCCTAGTTACCA GCTCCCTTCTTTCCAGACTCAATTCATTGCTNNCATACCTGCGCCCTCCCTTCCGCCCC CTTGCATACATACCACTCCCCCTCCCCTCCTCCTTGTAGCCTCCCGTCACCACATTC CCCTTTNCTCCAGCCCTGCGATTTACATTCGCGCAACCTATTTTATTTTGCCTTTGTAC TCTTTACAGTAGCCCATCTCTNAAACGCAGCCCTTTAGTTAACACCTGACNNTTCCNCC GTCCCTCCCTCTTCCCCTCGCTTGTCTCTTCGCTNCTCCCTCCCGCCAATGTTCTTC TTTTCGCTCGCCTTTCCCTTTT
Restriction Sites:	NotI-NotI
ACCN:	NM_016562
Insert Size:	3630 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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_016562.3](#), [NP_057646.1](#)

RefSeq Size: 4992 bp

RefSeq ORF: 3150 bp

Locus ID: 51284

UniProt ID: [Q9NYK1](#)

Cytogenetics: Xp22.2

Domains: TIR, LRRCT, LRR, LRR_TYP, LRR_SD22, LRR_BAC

Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Toll-like receptor signaling pathway

Gene Summary: The protein encoded by this gene is a member of the Toll-like receptor (TLR) family which plays a fundamental role in pathogen recognition and activation of innate immunity. TLRs are highly conserved from Drosophila to humans and share structural and functional similarities. The human TLR family comprises 11 members. They recognize pathogen-associated molecular patterns (PAMPs) that are expressed on infectious agents, and mediate the production of cytokines necessary for the development of effective immunity. For the recognition of structural components in foreign microorganisms, the various TLRs exhibit different patterns of expression as well; in this way for example, TLR-3, -7, and -8 are essential in the recognition of single-stranded RNA viruses. TLR7 senses single-stranded RNA oligonucleotides containing guanosine- and uridine-rich sequences from RNA viruses, a recognition occurring in the endosomes of plasmacytoid dendritic cells and B cells. This gene is predominantly expressed in lung, placenta, and spleen, and is phylogenetically related and lies in close proximity to another family member, TLR8, on chromosome X. [provided by RefSeq, Aug 2020]