

Product datasheet for RC207515

TLR7 (NM_016562) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TLR7 (NM_016562) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TLR7
Synonyms:	IMD74; TLR7-like
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC207515 representing NM_016562. Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTGTAGTAACCGTCAGAATTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGTGTTCCTCAATGTGGACTGAAGAGACAAATTCCTATCCTTTTAAACATAATCCTAATTTCCAAA
CTCCTTGGGGCTAGATGGTTTCTAAAACCTCTGCCCTGTGATGTCAGTCTGGATGTTCCAAAGAACCAT
GTGATCGTGGACTGCACAGACAAGCATTGACAGAAATTCCTGGAGGTATCCACGACACCACGAAAC
CTCACCTCACCATTAAACACATACCAGACATCTCCCAGCGTCTTTCCAGACTGGACCATCTGGTA
GAGATCGATTCAGATGCAACTGTGTACCTATCCACTGGGTCAAAAAACAACATGTGCATCAAGAGG
CTGCAGATTAACCCAGAAGCTTGTAGTGGACTCACTTATTTAAAATCCCTTTACCTGGATGAAACCAG
CTACTAGAGATACCGCAGGGCCTCCCGCTAGCTTACAGCTTCTCAGCCTTGAGGCCAACACATCTTT
TCCATCAGAAAAGAGAATCTAACAGAACTGGCCAACATAGAAATACTCTACCTGGGCCAAAACCTGTTAT
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TTTGTCAAGTCTCTGATTTTCAGCATCTTTCTTCTCAAATGCCTGAATCTGTGAGGAAATCTCATT
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 GACAATCATGTGCCTATAGTCAGGTGTTCAAGGAAACGGTC
 ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGAT
 TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC

Protein Sequence:

>Peptide sequence encoded by RC207515
 Blue=ORF Red=Cloning site Green=Tag(s)

MVFPMTLKRQILILFNIILISKLLGARWPKTLPDVTLDVDPKNHIVDCTDKHLTEIPGGIPTNTTN
 LTLTINHIPDISPASFHRLDHLVEIDFRNCVPIPLGSKNNMICIKRLQIKPRFSGLTYLKSLYLDGNQ
 LLEIPQGLPPSLQLLSLEANNIFSIRKENLTELANIEILYLQNCYRNPCYVSYIEKDAFLNLTKLK
 VLSLKDNNVTAVPTVLPSTLTEL YL YNNMIAKIQEDDFNNLNQLQILDLSGNCPRCYNAPFCAPCKNN
 SPLQIPVNAFDALTELKVLRLHSNSLQHVPPRWFKNINKLQELDLSONFLAKEIGDAKFLHFLPSLIQL
 DLSFNFELQVYRASMNLQAFSSLKSLKILRIRGYVFKELKSFNL SPLHNLQNLEVLDTGTFIKIANL
 SMFKQFKRLKVIDLSVNKISPSGDSSEVGFCSNARTSVESYEPQVLEQLHYFRYDKYARSCRFKNKEAS
 FMSVNESCYKYGQTLDL SKNSIFFVKSSDFQHL SFLKCLNL SGNLSI SQT L NGSEF QPLAELRYLDF SNN
 RLDLLHSTAFEELHKLEVLDISSNSHYFQSEGI THMLNF TKNL KVLQKLMNDNDI SSSTSRTMESESL
 RTLEFRGNHLDVLRWEGDNRYLQLFKNLLKLEELDISKNLSFLPSGVFDGMPNPKNL SLAKNGLKSF
 SWKKLQCLKNLETLDSLHNQLTTPERLSNCSRSKLNILKNNQIRSLTKYFLQDAFLRYLDSLNNKI
 QMIQKTSFPENVLNMLKMLLHHNRFLCTDAVWFVWVNHTEVTIPYLATDVTVCVGPAGHKQSVISL
 DLYTCELDLTNLILFSLISVSLFLMVMMTASHLYFWDVWYIYHFCKAKIKGYQLISPDCCYDAFIVY
 DTKDPAVTEWVLAELVAKLEDPREKHFNLCEERDWPQGPVLENLSQSIQLSKKTVFVMTDKYAKTEN
 FKIAFYLSHQRLMDEKVDVILIFLEKPFQKSKFLQLRKRLCGSSVLEWPTNPQAHYPYFQCLKNALAT
 DNHVAYSQVFKETV
 TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mg2722_b01.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_016562

ORF Size: 3147 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 Size: 4992 bp

RefSeq ORF: 3150 bp

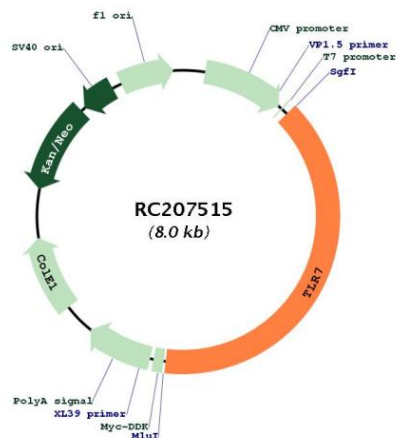
Locus ID: 51284

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
MW: 120.9 kDa

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]

Product images:



Circular map for RC207515