

Product datasheet for **RC222820**

TLR4 (NM_138554) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TLR4 (NM_138554) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TLR4
Synonyms:	ARMD10; CD284; TLR-4; TOLL
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC222820 representing NM_138554
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCCTCGCGCCTGGCTGGGACTCTGATCCCAGCCATGGCCTTCTCTCCTGCGTGAGACCAGAAA
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Protein Sequence: >RC222820 representing NM_138554
Red=Cloning site Green=Tags(s)

MSASRLAGTLIPAMAFLSCVRPESWEPCVEVVPNITYQCMELNFYKIPDNLPFSTKNLDLSFNPLRHLGS
YSFFSFPELQVLDL SRCEIQTIEDGAYQSLSHLSTLIL TGNPIQSLALGAFSGLSSLQKL VAVETNLASL
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NLTIEEFRLAYLDYYLDDIIDLFNCLTNVSSFSLVSVTIERVKDFSYNFGWQHLELVNCKFGQFPPTLKLK
SLKRLTFTSNKGGNAFSEVDLPSEFLDL SRNGLSFKGCCSQSDFGTTSLKYLDLSFNNGVITMSSNFLGL
EQLEHLDFQHSNLKQMSEFSVFLSLRNL IYLDISHTHTRVAFNGIFNGLSSLEVLK MAGNSFQENFLPDI
FTEL RNL TFLDLSQCQLEQLSPTAFNSLSSLQVLNMSHNNFFSLDTFPYKCLNSLQVLDYSLNHIMTSKK
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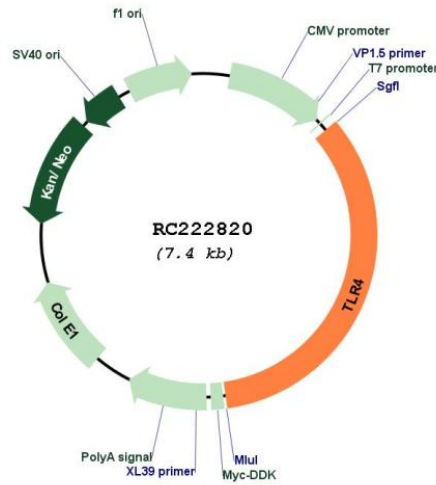
Chromatograms: https://cdn.origene.com/chromatograms/mg2944_c01.zip

Restriction Sites: Sgfl-Mlul

Cloning Scheme:



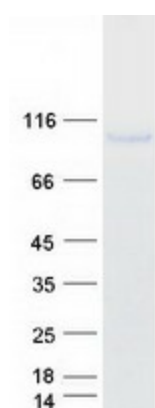
Plasmid Map:



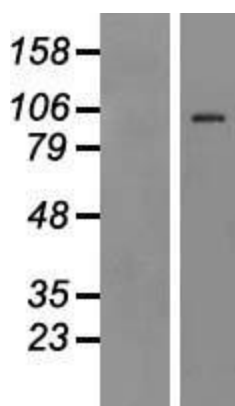
ACCN:

NM_138554

ORF Size:	2514 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:	<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_138554.5
RefSeq Size:	5503 bp
RefSeq ORF:	2520 bp
Locus ID:	7099
UniProt ID:	O00206
Cytogenetics:	9q33.1
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Pathogenic Escherichia coli infection, Toll-like receptor signaling pathway
MW:	93.2 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. They recognize pathogen-associated molecular patterns that are expressed on infectious agents, and mediate the production of cytokines necessary for the development of effective immunity. The various TLRs exhibit different patterns of expression. In silico studies have found a particularly strong binding of surface TLR4 with the spike protein of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the causative agent of Coronavirus disease-2019 (COVID-19). This receptor has also been implicated in signal transduction events induced by lipopolysaccharide (LPS) found in most gram-negative bacteria. Mutations in this gene have been associated with differences in LPS responsiveness, and with susceptibility to age-related macular degeneration. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Aug 2020]

Product images:

Coomassie blue staining of purified TLR4 protein (Cat# [TP322820]). The protein was produced from HEK293T cells transfected with TLR4 cDNA clone (Cat# RC222820) using MegaTran 2.0 (Cat# [TT210002]).



Western blot validation of overexpression lysate (Cat# [LY408575]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222820 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).