

Product datasheet for **RC200006**

LDL Receptor (LDLR) (NM_000527) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	LDL Receptor (LDLR) (NM_000527) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	LDL Receptor
Synonyms:	FH; FHC; FHCL1; LDLCQ2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC200006 representing NM_000527
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGGCCCTGGGGCTGAAATTGCGCTGGACCGTCGCCTTGCTCCTCGCCGCGGGGGACTGCAGTGG
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 TGGCAGCGCTGAGTGCCAGGATGGCTCTGATGAGTCCCAGGAGACGTGCTTGTCTGTACCTGCAATCC
 GGGGACTTCAGCTGTGGGGCCGTGTCAACCGCTGCATTCCTCAGTTCCTGGAGGTGCGATGGCCAAGTGG
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 TCTTCCACAACCTCACCCAGCAAGAGGAGTGAAGTGGTGTGAGAGGACCACCCTGAGCAATGGCGGCTG
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ACGGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC200006 representing NM_000527
 Red=Cloning site Green=Tags(s)

MGPWGWKLRWTVALLAAAGTAVGDR CERNEFQCQDGKCI SYKWVCDGSAECQDGSDESQETCLSVTCKSGDFSCGGRVNRCI PQFWRCDGQVDCDNGSDEQGCPPKTC SQDEF RCHDGGKCI SRQFVCDSDRDCLDGSDE ASCPVLTCGPASFQCNSSTCIPQLWACDNDPDCEDGSD EWPQRCRGLYVFQGDSSPSCSAFEFHCLSGECI HSSWRCDGGPDCKDKSDEENCAVATCRPDEFQCS DGNCIHGSRQCDREYDCKDMSDEVGCNVNVTLC EGPN KFKCHSGECITL DKVCNMARDCRDWSDEPIKECGTNECLDNNGGCSHVCNDLKIGYECLCPDGFQLVAQR RCEDIDECQDPDTC SQLCVNLEGGYKQCCEEGQLDPHTKACKAVGSIAYLFFTNRHEVRKMTLDRSEY T SLIPNLRNVVALDTEVASNRIYWSDL SQRMICSTQLDRAHGVSSYD TVISRDIQAPDGLAVDWIHSNIYW TDSVLGTVSVADTKGVKRKTLFRENGSKPRAIVVDPVHGFM YWTDWGTPAKIKKGLNGVDIYSLVTENI QWPNGITLDLLSGRLYWVDSKLSHSSIDVNGGNRKTILEDEKRLAHPFSLAVFEDKVFWTDIINEAIFS ANRLTGSVDNLLAENLLSPEDMVL FHNLTQPRGVNWCERTT L SNGGCQYLCLPAPQINPHSPKFTCACPD GMLLARDMRSCLTEAEA VATQETSTVRLKVSSTAVRTQH TTRPV P DTSRLPGATPGLTTVEIVTMSHQ ALGDVAGRGNEKKPSSVRAL SIVLP I VLLVFLCLGVFLLWKNWRLKNINSINF DNPVYQKTTEDEVHICH NQDGYSYPSRQMVSL EDDVA

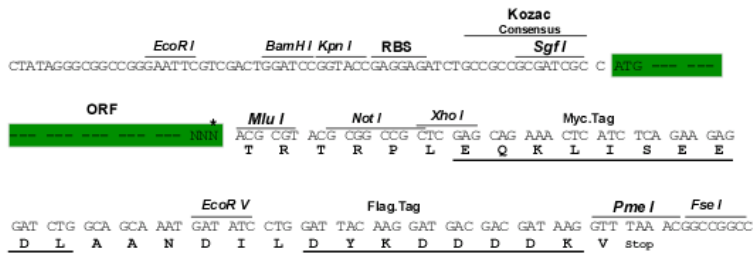
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg2598_c09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:

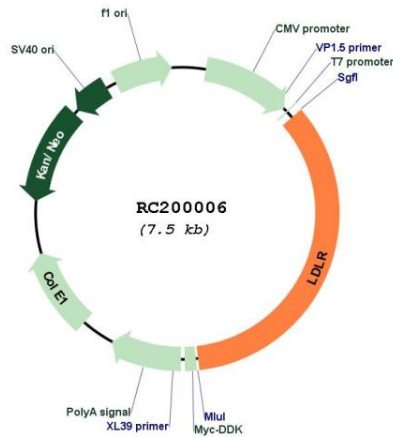


* The last codon before the Stop codon of the ORF

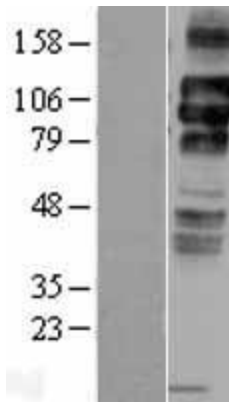
ACCN:	NM_000527
ORF Size:	2580 bp
OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid 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.</p> <p>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</p>
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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_000527.2 , NP_000518.1
RefSeq Size:	5175 bp
RefSeq ORF:	2583 bp
Locus ID:	3949
UniProt ID:	P01130
Cytogenetics:	19p13.2
Domains:	ldl_recept_b, EGF_CA, ldl_recept_a, EGF, EGF
Protein Families:	Druggable Genome, ES Cell Differentiation/IPS, Transmembrane
Protein Pathways:	Endocytosis
MW:	95.38 kDa

Gene Summary:

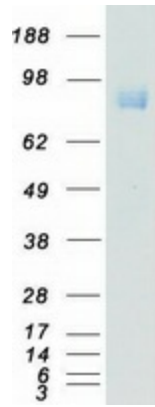
The low density lipoprotein receptor (LDLR) gene family consists of cell surface proteins involved in receptor-mediated endocytosis of specific ligands. Low density lipoprotein (LDL) is normally bound at the cell membrane and taken into the cell ending up in lysosomes where the protein is degraded and the cholesterol is made available for repression of microsomal enzyme 3-hydroxy-3-methylglutaryl coenzyme A (HMG CoA) reductase, the rate-limiting step in cholesterol synthesis. At the same time, a reciprocal stimulation of cholesterol ester synthesis takes place. Mutations in this gene cause the autosomal dominant disorder, familial hypercholesterolemia. Alternate splicing results in multiple transcript variants.[provided by RefSeq, Sep 2010]

Product images:


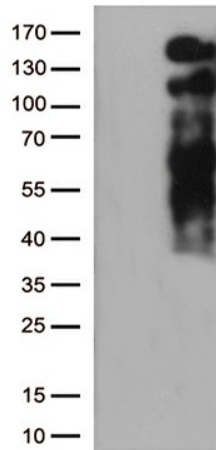
Circular map for RC200006



Western blot validation of overexpression lysate (Cat# [LY400183]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200006 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified LDLR protein (Cat# [TP300006]). The protein was produced from HEK293T cells transfected with LDLR cDNA clone (Cat# RC200006) using MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY LDLR (Cat# RC200006, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-LDLR (Cat# [TA812510])(1:2000). Positive lysates [LY400183] (100ug) and [LC400183] (20ug) can be purchased separately from OriGene.