OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for SC110941

LDL Receptor (LDLR) (NM_000527) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	LDL Receptor (LDLR) (NM_000527) Human Untagged Clone
Tag:	Tag Free
Symbol:	LDL Receptor
Synonyms:	FH; FHC; FHCL1; LDLCQ2
Mammalian Cell Selection:	None
Vector:	pCMV6-XL4
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

>OriGene sequence for NM_000527 edited
GAATTCGGCACCAGGGACACAGCAGGTCGTGATCCGGGTCGGGACACTGCCTGGCAGAGG
CTGCGAGCATGGGGCCCTGGGGCTGGAAATTGCGCTGGACCGTCGCCTTGCTCCTCGCCG
CGGCGGGGACTGCAGTGGGCGACAGATGCGAAAGAAACGAGTTCCAGTGCCAAGACGGGA
AATGCATCTCCTACAAGTGGGTCTGCGATGGCAGCGCTGAGTGCCAGGATGGCTCTGATG
AGTCCCAGGAGACGTGCTTGTCTGTCACCTGCAAATCCGGGGACTTCAGCTGTGGGGGCC
GTGTCAACCGCTGCATTCCTCAGTTCTGGAGGTGCGATGGCCAAGTGGACTGCGACAACG
GCTCAGACGAGCAAGGCTGTCCCCCCAAGACGTGCTCCCAGGACGAGTTTCGCTGCCACG
ATGGGAAGTGCATCTCTCGGCAGTTCGTCTGTGACTCAGACCGGGACTGCTTGGACGGCT
CAGACGAGGCCTCCTGCCCGGTGCTCACCTGTGGTCCCGCCAGCTTCCAGTGCAACAGCT
CCACCTGCATCCCCCAGCTGTGGGCCTGCGACAACGACCCCGACTGCGAAGATGGCTCGG
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GACCCAACAAGTTCAAGTGTCACAGCGGCGAATGCATCACCCTGGACAAAGTCTGCAACA
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GTCAGGATCCCGACACCTGCAGCCAGCTCTGCGTGAACCTGGAGGGTGGCTACAAGTGCC
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TCGCCTACCTCTTCTTCACCAACCGGCACGAGGTCAGGAAGATGACGCTGGACCGGAGCG
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GAGCCCACGGCGTCTCTTCCTATGACACCGTCATCAGCAGAGACATCCAGGCCCCCGACG
GGCTGGCTGTGGACTGGATCCACAGCAACATCTACTGGACCGACTCTGTCCTGGGCACTG

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TCTCTGTTGCGGATACCAAGGGCGTGAAGAGGAAAACGTTATTCAGGGAGAACGGCTCCA
AGCCAAGGGCCATCGTGGTGGATCCTGTTCATGGCTTCATGTACTGGACTGACTGGGGAA
CTCCCGCCAAGATCAAGAAAGGGGGCCTGAATGGTGTGGACATCTACTCGCTGGTGACTG
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CTTCCCCAATCTTGTCGTTGATGGGTATGTGTTTAAAACATGCACGGTGAGGCCGGGCGC
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AGGTTGAAGTGAGCCGAGATTGCGCCACTGCAGTCCGCAGTCCGGCCTGGGCGACAGAGC
GAGACTCCGTCTCAAAAAAAAAAAAAAAAAAAACTCGAC

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_000527 unedited
CGGATTTTGGTATACGACTCACTATAGGGCGGCCCGCGATTCGGCACCAGGNACACAGCA
GGTCGTGATCCGGGTCGGGACACTGCCTGGCAGAGGCTGCGAGCATGGGGCCCTGGGGCT
GGAAATTGCGCTGGACCGTCGCCTTGCTCCTCGCCGCGGCGGGGACTGCAGTGGGCGACA
GATGCGAAAGAAACGAGTTCCAGTGCCAAGACGGGAAATGCATCTCCTACAAGTGGGTCT
GCGATGGCAGCGCTGAGTGCCAGGATGGCTCTGATGAGTCCCAGGAGACGTGCTTGTCTG
TCACCTGCAAATCCGGGGACTTCAGCTGTGGGGGCCGTGTCAACCGCTGCATTCCTCAGT
TCTGGAGGTGCGATGGCCAAGTGGACTGCGACAACGGCTCAGACGAGCAAGGCTGTCCCC
CCAAGACGTGCTCCCAGGACGAGTTTCGCTGCCACGATGGGAAGTGCATCTCTCGGCAGT
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TCACCTGTGGTCCCGCCAGCTTCCAGTGCAACAGCTCCACCTGCATCCCCCAGCTGTGGG
CCTGCGACAACGACCCCGACTGCGAAGATGGCTCGGATGAGTGGCCGCAGCGCTTGTAGG
GTCTTTTACGTGTTCCAAGGGGGACAGTAGCCCCTGCTCGGCCTTCGAGTTCCACTGCCT
AAGTGGGCGAGTGCATCCACTCCAGCTGGCGCTGGGAAATGGTGGCCCCCGACTGGCAGG
ACANATCTGACGAGGAACCTGGGGCTGTGGCCACCTGTCGCCTGACGAATCCAGTGCTCT
GATGGGAACTGCATCATGGCGCCGGCAGTTGACCGGGATTTGACTGCCAGCTGGCCNCNN
NAAATTTGCTGGCTTATGGACACTTTGGAGCCCACAAGTTCAGTGCCACGGGCGAAGG

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_000527 unedited
NNNTTAAGCTCTGNNACCGCGGCCGCATNCTAGNGTCGAGTTTTTTTTTTTTTTTTTTT
GAAACGGAGTCTCGCTCTGTCGCCCAGGCCGGACTGCGGACTGCAGTGGCGCAATCTCGG
CTCACTTCAACCTCCGCTTCCCGGGTTCACACCATTCTCCTGCCTCAGCCTCCCGAGTAG
CTGGGACTACAGGTGCCCGCCACCGCGCCCGGCTAATTTTTTGTATTTTTAAGAGAACGG
GGTTTCACCTTGTTAGCCAGGATGGGTCTCGATCTCCTGACCTCATGATCCACCCGGCTT
TGGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACTGGCCCCGGGCTCACCGTGCAT
GGTTTAAACACATACCCATTAACGACCAGATATGGGAAATGAATGGCTTTGAAGCATTTG
GATANAAGTGGAAAACCTTAAGGGGGCGGGCATTAAGACCACAATGGGAGGTCTTCGAGA
TTTACGAAAACCAGGTTTGAAAAACCCCGGGAAAACTGTCCCCTTTCTGTGCCCCGGGAT
TTATTTGGAACAGGGTTTTTCCTGGGCCGGGGATCCCCTCCCCACACCCCCCACCGGAAA
AAGCGGCCAAAAAAAACACCAAAGGCCAAAGGGCCCAATGGGCCACTTCTTTACCTCGAA
AAGGCCAGGGGACCCCCGGAATGGAAAAGGGTTAGGGGCCGGAAGAACGGGCCCAAACTG
GGGGTCTTCAAAACCACCTGGGGGGAGGCCCCCTGTCCTCCCGGGCAAGGGAACCGGGGG
TTCATGCCCCTTTTAAAAATTAGGGGGGACCGGGGCTCCAGCCTTTCTCCTGGGAAAAGG
GCCATTTTGGGAAAAAAGATTGGTTCCGGGCCCCCCCGGTTTTCCCGAGAATTTTCCCGG
CCGGGAACCCTTCCCGGGTTAAGGAAGGCCAACCCCCCTTGAAGAACTGGNTGGTCAT

Restriction Sites: NotI-NotI

ACCN: NM_000527

Insert Size: 4000 bp

OTI Disclaimer:	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. 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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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_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

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]
Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (1). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.