

Product datasheet for **RG231378**

LDL Receptor (LDLR) (NM_001195800) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	LDL Receptor (LDLR) (NM_001195800) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	LDL Receptor
Synonyms:	FH; FHC; FHCL1; LDLCQ2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG231378 representing NM_001195800
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGGCCCTGGGGCTGGAATTGCGCTGGACCGTCGCCTTGCTCCTCGCCGCGGGGGACTGCAGTGG
 GCGACAGATGCGAAAGAAACGAGTTCAGTGCCAAGACGGGAAATGCATCTCCTACAAGTGGGTCTGCGA
 TGGCAGCGCTGAGTGCCAGGATGGCTCTGATGAGTCCCAGGAGACGTGCTTGTCTGTACCTGCAAATCC
 GGGGACTTCAGCTGTGGGGCCGTGTCAACCGCTGCATTCCTCAGTTCTGGAGGTGCGATGGCCAAGTGG
 ACTGCGACAACGGCTCAGACGAGCAAGGCTGTCTGACACTCTGCGAGGGACCCAACAAGTCAAGTGTCA
 CAGCGCGAATGCATCACCTGGACAAAGTCTGCAACATGGCTAGAGACTGCCGGGACTGGTCAGATGAA
 CCCATCAAAGAGTGGGGACCAACGAATGCTTGGACAACAACGGCGGCTGTTCCACGTCTGCAATGACC
 TTAAGATCGGCTACGAGTGCCTGTGCCCGACGGCTTCCAGCTGGTGGCCAGCGAAGATGCGAAGATAT
 CGATGAGTGTGAGATCCCGACACTGCAGCCAGCTCTGCGTGAACCTGGAGGGTGGCTACAAGTCCAG
 TGTGAGGAAGGCTTCCAGCTGGACCCCCACACGAAGGCCTGCAAGGCTGTGGGCTCCATCGCCTACCTCT
 TCTTACCAACCCGACGAGGTACGGAAGATGACGCTGGACCCGGAGCGAGTACACCAGCCTCATCCCCAA
 CCTGAGGAACGTGGTCTGCTGACACGGAGGTGGCCAGCAATAGAATCTACTGGTCTGACCTGTCCAG
 AGAATGATCTGCAGCACCCAGCTTGACAGAGCCCCACGGCTCTCTTCTATGACACCGTCATCAGCAGAG
 ACATCCAGGCCCCGACGGGCTGGCTGTGGACTGGATCCACAGCAACATCTACTGGACCGACTCTGTCTCT
 GGGCACTGTCTCTGTTGCGGATACCAAGGGCGTGAAGAGGAAAACGTTATTCAGGGAGAACGGCTCCAAG
 CCAAGGGCCATCGTGGTGGATCCTGTTTCATGGCTTTCATGACTGGACTGACTGGGAACTCCCGCAAGA
 TCAAGAAAAGGGCCCTGAATGGTGTGGACATCTACTCGCTGGTACTGAAAACATTCAGTGGCCCAATGG
 CATCACCTAGATCTCCTCAGTGGCCGCTCTACTGGGTTGACTCCAAACTTCACTCCATCTCAAGCATC
 GATGTCAACGGGGCAACCGGAAGACCATTGGAGGATGAAAAGAGGCTGGCCACCCCTTCTCCTTGG
 CCGTCTTTGAGGACAAAGTATTTTGGACAGATATCATCAACGAAGCCATTTTCAGTGCCAACCGCCTCAC
 AGGTTCCGATGTCAACTGTTGGCTGAAAACCTACTGTCCCCAGAGGATATGGTTCTCTTCCACAACCTC
 ACCCAGCAAGAGGAGTGAAGTGGTGTGAGAGGACCACCCTGAGCAATGGCGGCTGCCAGTATCTGTGCC
 TCCCTGCCCGCAGATCAACCCCACTCGCCCAAGTTTACCTGCGCCTGCCCGGACGGCATGCTGCTGGC
 CAGGGACATGAGGAGCTGCCTCACAGAGGCTGAGGCTGCAGTGGCCACCCAGGAGACATCCACCGTCAGG
 CTAAGGTGAGTCCACAGCCGTAAAGACACAGCACACAACCCGACCTGTTCCCGACACCTCCCGGC
 TGCTGGGGCCACCCCTGGGCTCACACGGTGGAGATAGTGACAATGTCTACCAAGCTCTGGGCGACGT
 TGCTGGCAGAGGAAATGAGAAGAAGCCAGTAGCGTGAGGGCTCTGTCCATTGTCCTCCCATCTGTGCTC
 CTCGTCTTCTTTGCCTGGGGTCTTCTTCTATGGAAGAAGTGGCGGCTTAAGAACATCAACAGCATCA
 ACTTTGACAACCCGCTATCAGAAGACCACAGAGGATGAGGTCCACATTTGCCACAACCCAGGACGGCTA
 CAGTACCCCTCGAGACAGATGGTCAGTCTGGAGGATGACGTGGCG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG231378 representing NM_001195800
 Red=Cloning site Green=Tags(s)

MGPWGWLRLWTVALLLAAAGTAVGDR CERNEFQCQDGK CISYKWVCDGSAECQDGSDESQETCLSVTCKS
 GDFSCGGRVNR CIPQFWRCDGQVDCDNGSDEQGLTLC EGP NFKCHSGECITLDKVCNMARDCRDWSDE
 PIKECGTNECLDNNGGCSHVCNDLKI GYECLCPDGFQLVAQRRCEDIDECQDPDTC SQLCVNLEGGYK CQ
 CEEGFQLDPHTKACKAVGSIAYLFF TNRHEVRKMTLDRSEY TSLIPNLRNVVALDTEVASNRIYWSDSL SQ
 RMI CSTQLDRAHGVSSYDTVISRDIQAPDGLAVDWIHSNIYWTDSVLGTVSVADTKGVK R KTLFRENGSK
 PRAIVVDPVHGFMYWTDWGT PAKIKKGLNGVDIYSLVTENIQWPNGITLDLLSGRLYWVDSKLH SSI
 DVNGGNRKTILEDEKRLAHPFSLAVFEDKVFWTDIINEAIF SANRLTGSDVNLLAENLLSPEDMVL FHNL
 TQPRGVNWCERTT LSNGGCQYLCLPAPQINPHSPKFTCACPDGMLLARDMRSLTEA EAAVATQETSTVR
 LKVSSTAVRTQHTTTRPVPDTSRLPGATPGLTTVEIVTMSHQALGDVAGRGNEKKPSSVRALSIVLP IVL
 LVFLCLGVFLLWKNWRLKNINSINF DNPVYQKTTEDEVHICHNQDGYSYPSRQMVSLEDDVA

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001195800

ORF Size: 2076 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: [NM_001195800.2](#)

RefSeq Size: 4788 bp

RefSeq ORF: 2079 bp

Locus ID: 3949

UniProt ID: [P01130](#)

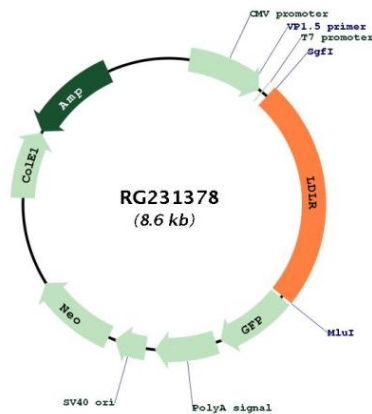
Cytogenetics: 19p13.2

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]

Product images:



Circular map for RG231378