

# **Product datasheet for RC220963**

### ApoER2 (LRP8) (NM\_004631) Human Tagged ORF Clone

#### **Product data:**

**Product Type:** Expression Plasmids

Product Name: ApoER2 (LRP8) (NM\_004631) Human Tagged ORF Clone

Tag: Myc-DDK
Symbol: ApoER2

Synonyms: APOER2; HSZ75190; LRP-8; MCI1

Mammalian Cell Neomycin

Selection:

Vector:pCMV6-Entry (PS100001)E. coli Selection:Kanamycin (25 ug/mL)

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ORF Nucleotide Sequence:

>RC220963 representing NM\_004631.
Blue=ORF Red=Cloning site Green=Tag(s)

GCTCGTTTAGTGAACCGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG GATCCGGTACCGAGGAGATCTGCCGCC<mark>GCGATCGC</mark>C

CTGCAGCTCCAGCATCTTGCGGCGGCAGCGGCTGATCCGCTGCTCGGCGGCCAAGGGCCGACGACGAT TGCGAAAAGGACCAATTCCAGTGCCGGAACGAGCGCTGCATCCCCTCTGTGTGGAGATGCGACGAGGAC GATGACTGCTTAGACCACAGCGACGACGACGACTGCCCCAAGAAGACCTGTGCAGACAGTGACTTCACC TGTGACAACGGCCACTGCATCCACGAACGGTGGAAGTGTGACGGCGAGGAGGAGTGTCCTGATGGCTCC GATGAGTCCGAGGCCACTTGCACCAAGCAGGTGTGTCCTGCAGAGAAGCTGAGCTGTGGACCCACCAGC CACAAGTGTGTACCTGCCTCGTGGCGCTGCGACGGGGAGAAGGACTGCGAGGGTGGAGCGGATGAGGCC GGCTGTGCTACCTTGTGCGCCCCGCACGAGTTCCAGTGCGGCAACCGCTCGTGCCTGGCCGCCGTGTTC GTGTGCGACGGCGACGACGACTGTGGTGACGGCAGCGATGAGCGCGGCTGTGCAGACCCGGCCTGCGGG CCCCGCGAGTTCCGCTGCGGCGGCGATGGCGGCGCGCCTGCATCCCGGAGCGCTGGGTCTGCGACCGC CAGTTTGACTGCGAGGACCGCTCGGACGAGGCAGCTCTGCGGCCGCCCGGGCCCCGGGGCCACG TGGCGCTGCGACGGCGACCGCGACTGCAAAGACAAATCGGACGAGGCCGACTGCCCACTGGGCACCTGC CGTGGGGACGAGTTCCAGTGTGGGGATGGGACATGTGTCCTTGCAATCAAGCACTGCAACCAGGAGCAG GACTGTCCAGATGGGAGTGATGAAGCTGGCTGCCTACAGGGGGCTGAACGAGTGTCTGCACAACAATGGC GGCTGCTCACACATCTGCACTGACCTCAAGATTGGCTTTGAATGCACGTGCCCAGCAGGCTTCCAGCTC CTGGACCAGAAGACCTGTGGCGACATTGATGAGTGCAAGGACCCAGATGCCTGCAGCCAGATCTGTGTC AATTACAAGGGCTATTTTAAGTGTGAGTGCTACCCTGGCTACGAGATGGACCTACTGACCAAGAACTGC AAGGCTGCTGCAAAGAGCCCATCCCTAATCTTCACCAACCGGCACGAGGTGCGGAGGATCGACCTG GTGAAGCGGAACTATTCACGCCTCATCCCCATGCTCAAGAATGTCGTGGCACTAGATGTGGAAGTTGCC ACCAATCGCATCTACTGGTGTGACCTCTCCTACCGTAAGATCTATAGCGCCTACATGGACAAGGCCAGT GACCCGAAAGAGCAGGAGGTCCTCATTGACGAGCAGTTGCACTCTCCAGAGGGCCTGGCAGTGGACTGG GTCCACAAGCACATCTACTGGACTGACTCGGGCAATAAGACCATCTCAGTGGCCACAGTTGATGGTGGC CGCCGACGCACTCTCTTCAGCCGTAACCTCAGTGAACCCCGGGCCATCGCTGTTGACCCCCTGCGAGGG TTCATGTATTGGTCTGACTGGGGGGACCAGGCCAAGATTGAGAAATCTGGGCTCAACGGTGTGGACCGG CAAACACTGGTGTCAGACAATATTGAATGGCCCAACGGAATCACCCTGGATCTGCTGAGCCAGCGCTTG TACTGGGTAGACTCCAAGCTACACCAACTGTCCAGCATTGACTTCAGTGGAGGCAACAGAAAGACGCTG ATCTCCTCCACTGACTTCCTGAGCCACCCTTTTGGGATAGCTGTTTTGAGGACAAGGTGTTCTGGACA GACCTGGAGAACGAGGCCATTTTCAGTGCAAATCGGCTCAATGGCCTGGAAATCTCCATCCTGGCTGAG AACCTCAACAACCCACATGACATTGTCATCTTCCATGAGCTGAAGCAGCCAAGAGCTCCAGATGCCTGT GAGCTGAGTGTCCAGCCTAATGGAGGCTGTGAATACCTGTGCCTTCCTGCTCCTCAGATCTCCAGCCAC TCTCCCAAGTACACATGTGCCTGTCCTGACACAATGTGGCTGGGTCCAGACATGAAGAGGTGCTACCGA GCACCTCAATCTACCTCAACTACGACGTTAGCTTCTACCATGACGAGGACAGTACCTGCCACCACAAGA GCCCCCGGGACCACCGTCCACAGATCCACCTACCAGAACCACAGCACAGAGACACCAAGCCTGACAGCT GCAGTCCCAAGCTCAGTTAGTGTCCCCAGGGCTCCCAGCATCAGCCCGTCTACCCTAAGCCCTGCAACC AGCAACCACTCCCAGCACTATGCAAATGAAGACAGTAAGATGGGCTCAACAGTCACTGCCGCTGTTATC GGGATCATCGTGCCCATAGTGGTGATAGCCCTCCTGTGCATGAGTGGATACCTGATCTGGAGAAACTGG AAGCGGAAGAACACCAAAAGCATGAATTTTGACAACCCAGTCTACAGGAAAACAACAGAAGAAGAAGAT GAAGATGAGCTCCATATAGGGAGAACTGCTCAGATTGGCCATGTCTATCCTGCAGCAATCAGCAGCTTT GATCGCCCACTGTGGGCAGAGCCCTGTCTTGGGGAGACCAGAGAACCGGAAGACCCAGCCCCTGCCCTC AAGGAGCTTTTTGTCTTGCCGGGGGAACCAAGGTCACAGCTGCACCAACTCCCGAAGAACCCTCTTTCC GAGCTGCCTGTCGTCAAATCCAAGCGAGTGGCATTAAGCCTTGAAGATGATGGACTACCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC



**Protein Sequence:** 

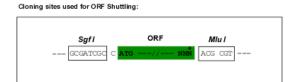
>Peptide sequence encoded by RC220963 Blue=ORF Red=Cloning site Green=Tag(s)

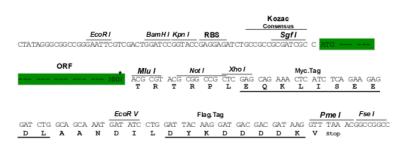
MGLPEPGPLRLLALLLLLLLLLLLQQHLAAAAADPLLGGQGPAKDCEKDQFQCRNERCIPSVWRCDED DDCLDHSDEDDCPKKTCADSDFTCDNGHCIHERWKCDGEEECPDGSDESEATCTKQVCPAEKLSCGPTS HKCVPASWRCDGEKDCEGGADEAGCATLCAPHEFQCGNRSCLAAVFVCDGDDDCGDGSDERGCADPACG PREFRCGGDGGGACIPERWVCDRQFDCEDRSDEAAELCGRPGPGATSAPAACATASQFACRSGECVHLG WRCDGDRDCKDKSDEADCPLGTCRGDEFQCGDGTCVLAIKHCNQEQDCPDGSDEAGCLQGLNECLHNNG GCSHICTDLKIGFECTCPAGFQLLDQKTCGDIDECKDPDACSQICVNYKGYFKCECYPGYEMDLLTKNC KAAAGKSPSLIFTNRHEVRRIDLVKRNYSRLIPMLKNVVALDVEVATNRIYWCDLSYRKIYSAYMDKAS DPKEQEVLIDEQLHSPEGLAVDWVHKHIYWTDSGNKTISVATVDGGRRRTLFSRNLSEPRAIAVDPLRG FMYWSDWGDQAKIEKSGLNGVDRQTLVSDNIEWPNGITLDLLSQRLYWVDSKLHQLSSIDFSGGNRKTL ISSTDFLSHPFGIAVFEDKVFWTDLENEAIFSANRLNGLEISILAENLNNPHDIVIFHELKQPRAPDAC ELSVQPNGGCEYLCLPAPQISSHSPKYTCACPDTMWLGPDMKRCYRAPQSTSTTTLASTMTRTVPATTR APGTTVHRSTYQNHSTETPSLTAAVPSSVSVPRAPSISPSTLSPATSNHSQHYANEDSKMGSTVTAAVI GIIVPIVVIALLCMSGYLIWRNWKRKNTKSMNFDNPVYRKTTEEEDEDELHIGRTAQIGHVYPAAISSF DRPLWAEPCLGETREPEDPAPALKELFVLPGEPRSQLHQLPKNPLSELPVVKSKRVALSLEDDGLP TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** 

Sgfl-Mlul

**Cloning Scheme:** 





<sup>\*</sup> The last codon before the Stop codon of the ORF

**ACCN:** NM\_004631

ORF Size: 2889 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 <a href="mailto:customport@origene.com">customport@origene.com</a> 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 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.

Note:

Plasmids are not sterile. For experiments where strict sterility is required, filtration with

0.22um filter is required.

 RefSeq Size:
 4528 bp

 RefSeq ORF:
 2892 bp

 Locus ID:
 7804

 UniProt ID:
 Q14114

 Cytogenetics:
 1p32.3

**Domains:** Idl\_recept\_b, EGF\_CA, Idl\_recept\_a, EGF

**Protein Families:** Druggable Genome, Secreted Protein, Transmembrane

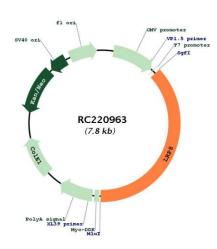
**MW:** 105.6 kDa



#### **Gene Summary:**

This gene encodes a member of the low density lipoprotein receptor (LDLR) family. Low density lipoprotein receptors are cell surface proteins that play roles in both signal transduction and receptor-mediated endocytosis of specific ligands for lysosomal degradation. The encoded protein plays a critical role in the migration of neurons during development by mediating Reelin signaling, and also functions as a receptor for the cholesterol transport protein apolipoprotein E. Expression of this gene may be a marker for major depressive disorder. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene. [provided by RefSeq, Jun 2011]

## **Product images:**



Circular map for RC220963