

Product datasheet for **RC203299**

Ubiquinol Cytochrome C Reductase Core Protein I (UQCRC1) (NM_003365) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ubiquinol Cytochrome C Reductase Core Protein I (UQCRC1) (NM_003365) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Ubiquinol Cytochrome C Reductase Core Protein I
Synonyms:	D3S3191; QCR1; UQCR1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC203299 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGGCGGCGTCCGTGGTCTGTGCGGGCCGTACCGCCGGGCAACAAGTCTATTGCGGCCCGCCGCTCGC
 CGGCCCTGCTGCGGACGCCAGCCTTGGGAGTACGGCAACCTTCGCTCAGGCGCTCCAGTTCGTGCCGGA
 GACGCAGTTAGCCTGCTGGACAACGGCCTGCGTGTGGCCTCCGAGCAGTCTCTCAGCCCACTTGACAG
 GTGGGAGTGTGGATTGATGTTGGCAGCCGTTTTGAGACTGAGAAGAATAATGGGGCAGGCTACTTTTTGG
 AGCATCTGGCTTCAAGGGAACAAGAATCGGCCCTGGCAGTGCCTGGAGAAGGAGGTGGAGAGCATGGG
 GGCCCATCTTAATGCCTACAGCACCCGGGAGCACACAGCTTACTACATCAAGGCGCTGTCCAAGGATCTG
 CCGAAAGCTGTGGAGCTCCTGGGTGACATTGTGCAGAAGTGTAGTCTGGAAGACTCACAGATTGAGAAGG
 AACGTGATGTGATCCTGCGGGAGATGCAGGAGAATGATGCATCTATGCGAGATGTGGTCTTAACTACCT
 GCATGCCACAGCATTCCAGGGCACACCTTAGCCAGGCTGTGGAGGGGCCAGTGAGAATGTCAGGAAG
 CTGTCTCGTGCAGACTTGACCGAGTACCTCAGCACACATTACAAGGCCCTCGAATGGTGCCTGGCAGCAG
 CTGGAGGAGTGGAGCACCAGCAACTGTTAGACCTCGCCAGAAGCACCTCGGTGGCATCCCATGGACATA
 TGCAGAGGACGCTGTGCCCACTTACTCCATGCCGCTTCACTGGCAGTGAATCCGCCACCGTGTGAT
 GCTCTACCTTTTGCCACGTGGCCATTGCAGTAGAGGGTCTGGCTGGGCCAGCCCGGACAATGTGGCCT
 TGCAAGTGGCCATGCCATCATCGGCCACTATGACTGCACTTATGGTGGTGGCGTGCACCTGTCCAGCCC
 ACTGGCTTCAGGTGCTGTGGCCAACAAGCTATGCCAGAGTTTCCAGACCTTCAGCATCTGCTATGCAGAG
 ACGGGCTTGTGGGTGCACACTTGTCTGTGACCGAATGAAAATCGATGACATGATGTTTCGTCCTGCAAG
 GGCAGTGGATGCGCCTGTACCAGTGCACGGAGAGTGAAGTGGCCCGGGGCAAAAACCTCCTCAGAAA
 TGCCTGGTATCTCATCTAGATGGCACTACTCCTGTGTGTGAGGACATCGGACGCAGCCTCCTGACCTAT
 GGCCGCCGCATCCCCCTGGCTGAATGGGAAAGCCGGATTGCGGAGGTGGATGCCAGTGTGGTACGTGAGA
 TCTGCTCAAGTACATCTATGACCAGTGCACAGTGGCTGGATATGGCCCATGAGCAGCTCCAGAG
 CTACAACCGGATCCGTAGCGGCATGTTCTGGTGCCTTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC203299 protein sequence
 Red=Cloning site Green=Tags(s)

MAASVVCRAATAGAQVLLRARRSPALLRTPALRSTATFAQALQFVPETQVSLDNLRVASEQSSQPTCT
 VGVWIDVGSRFETEKNNAGYFLEHLAFKGTKNRPGSALEKEVESMGAHLNAYSTREHTAYYIKALSKDL
 PKAVELLGDIVQNCSEDSQIEKERDVLREMQENDASMRDVVFNYLHATAFQGTPLAQAVEGSPENVRK
 LSRADLTEYLSTHYKAPRMVLAAGGVEHQQLDLAQKHLGGIPWYAEDA VPTLTPCRFTGSEIRHRDD
 ALPFAHVAIAVEGPGWASPDNVALQVANAII GHYDCTYGGGVHLSSPLASGAVANKLCQSFQTF SICYAE
 TGLLGAHFVCDRMKIDMMFVLQGWMLCTSATESEVARGKNILRNALVSHLDGTTVPVCEIDIGRSLTTY
 GRRIPLAEWESRIAEVDASVVREICSKYIYDQCPAVAGYGP IEQLPDYNRIRSGMFWLRF

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6154_g12.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:



ACCN: NM_003365

ORF Size: 1440 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_003365.3](#)

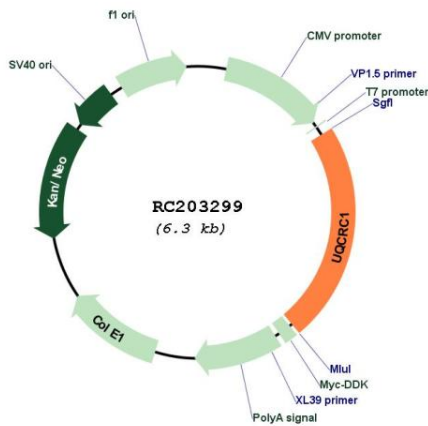
RefSeq Size: 1636 bp

RefSeq ORF: 1443 bp

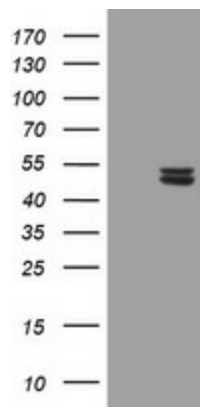
Locus ID: 7384

UniProt ID: [P31930](#)
 Cytogenetics: 3p21.31
 Domains: Peptidase_M16, Peptidase_M16_C
 Protein Families: Druggable Genome, Protease
 Protein Pathways: Alzheimer's disease, Cardiac muscle contraction, Huntington's disease, Metabolic pathways, Oxidative phosphorylation, Parkinson's disease
 MW: 52.6 kDa
 Gene Summary: This is a component of the ubiquinol-cytochrome c reductase complex (complex III or cytochrome b-c1 complex), which is part of the mitochondrial respiratory chain. This protein may mediate formation of the complex between cytochromes c and c1.[UniProtKB/Swiss-Prot Function]

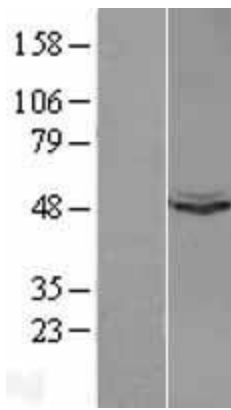
Product images:



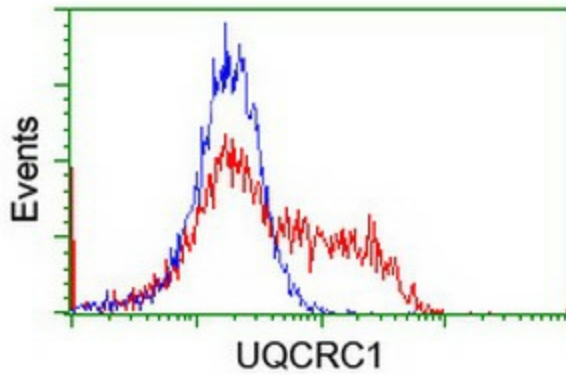
Circular map for RC203299



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY UQCRC1 (Cat# RC203299, 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-UQCRC1 (Cat# [TA800089]). Positive lysates [LY401151] (100ug) and [LC401151] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY401151]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203299 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells transfected with either RC203299 overexpress plasmid (Red) or empty vector control plasmid (Blue) were immunostained by anti-UQCRC1 antibody ([TA800089]), and then analyzed by flow cytometry.