

## Product datasheet for **RC204104**

### COQ4 (NM\_016035) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	COQ4 (NM_016035) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	COQ4
Synonyms:	CGI-92; COQ10D7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC204104 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCGACTCTGCTGCGCCCTGTCCTCCGTCGGCTCTGCGGGCTCCCGGGCTACAGCGGCCTGCGGCAG  
AAATGCCCTCCGGGCTAGGAGCGACGGCGCCGGCCCGCTATACTCGCACCACTCCACCTCCCCGCT  
GCAGAAAGCGCTGTTGGCCGCGGCTCCGCGGCGATGGCGCTCTATAACCCCTACCGCCACGACATGGTC  
GCAGTTCTAGGGGAGACCACAGGACACCGCACCTGAAGGTCCTCAGGGACCAGATGAGGAGGGATCCAG  
AGGGTGCCAGATCCTGCAGGAGCGTCCCGGATTCGACATCCACCCTCGACCTGGCAAGCTCCAGAG  
CCTGCCGGAAGGCTCCCTCGGTCGCGAGTATCTCCGTTTCTGGATGTGAACAGGGTCTCCCGAGACACC  
CGAGCACCCACCCGTTCTGGATGATGAGGAGCTAGCGTATGTGATTCAGCGGTACCGGGAGGTGCACG  
ACATGCTTACACCCTGCTGGGGATGCCACCAACATCCTGGGGGAGATCGTGGTGAATGGTTTGGGC  
TGTCCAGACTGGCCTGCCATGTGCATCCTGGGTGCATTCTTTGGACCGATCCGACTTGGCGCTCAGAGC  
CTGCAAGTGCTGGTCTCGGAGTTGATCCCATGGCCGTTCCAGAACGGGCGCAGAGCCCCATGTGTCTCA  
ACCTGTACTATGAGCGGCGCTGGGAGCAGTCCCTGAGGGCTCTGCGGGAGGAGCTGGGCATTACAGCACC  
ACCCATGCACGTCCAGGGCTTGGCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC204104 protein sequence  
Red=Cloning site Green=Tags(s)

MATLLRPVLRRLCGLPGLQRPAAEPLRARSDGAGPLYSHHLPTSPLQKALLAAGSAAMALYNPYRHDMV  
 AVLGETTGHRTLKVLRDQMRDPEGAQILQERPRISTSTLDLGLKLSLPEGSLGREYLRFLDYNRVSPDT  
 RAPTRFVDDDEELAYVIQRYREVHMLHTLLGMPNTILGEIVVKWFEAVQTGLPMCILGAFFGPIRLGAQS  
 LQVLVSELIPWAVQNGRRAPCVLNLYYERRWEQSLRALREELGITAPPMHVQGLA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6568\\_a08.zip](https://cdn.origene.com/chromatograms/mk6568_a08.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\_016035

**ORF Size:** 795 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\\_016035.4](#)

**RefSeq Size:** 1597 bp

**RefSeq ORF:** 798 bp

**Locus ID:** 51117

**UniProt ID:** [Q9Y3A0](#)

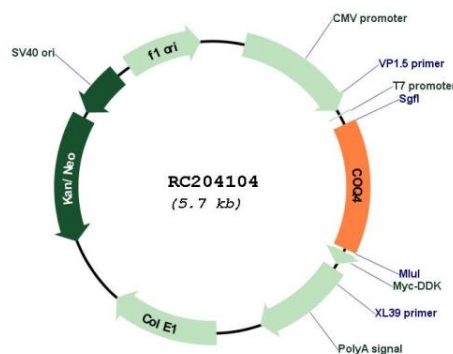
**Cytogenetics:** 9q34.11

**Domains:** Coq4

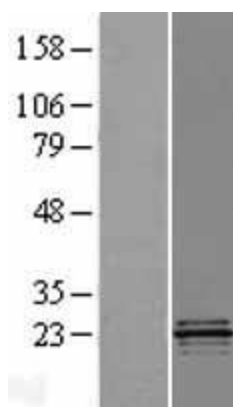
**MW:** 29.7 kDa

**Gene Summary:** This gene encodes a component of the coenzyme Q biosynthesis pathway. Coenzyme Q, an essential component of the electron transport chain, shuttles electrons between complexes I or II to complex III of the mitochondrial transport chain. This protein appears to play a structural role in stabilizing a complex that contains most of the coenzyme Q biosynthesis enzymes. Mutations in this gene are associated with mitochondrial disorders linked to coenzyme Q deficiency. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Apr 2015]

## Product images:



Circular map for RC204104



Western blot validation of overexpression lysate (Cat# [LY414232]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204104 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).