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 RC204353

COQ6 (NM_182476) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	COQ6 (NM_182476) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	COQ6
Synonyms:	CGI-10; CGI10; COQ10D6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC204353 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCGGCCCGGCTTGTCAGCCGATGCGGGGCTGTGCGTGCAGCTCCCCACAGCGGCCCGCTGGTGTCCT
GGCGCAGGTGGTCCGGCGCCTCAACAGACACCGTGTATGACGTGGTGGTGTCGGGTGGAGGCCTGGTGGG
CGCTGCCATGGCCTGTGCCTTGGGATATGATATTCACTTTCATGACAAGAAAATCCTGTTGCTCGAAGCA
GGTCCAAAGAAAGTACTGGAGAAATTGTCAGAAACTTACAGCAACAGGGTCAGCTCCATTTCCCCTGGCT
CTGCAACGCTTCTCAGTAGTTTTGGTGCCTGGGACCATATCTGCAACATGAGATACAGAGCCTTTCGGCG
AATGCAGGTGTGGGACGCCTGCTCAGAGGCCCTGATAATGTTTGATAAGGATAATTTAGATGACATGGGC
TATATCGTGGAGAATGATGTCATCATGCATGCTCTCACTAAGCAGTTGGAGGCTGTGTCTGACCGAGTGA
CGGTTCTCTACAGGAGCAAAGCCATTCGCTATACCTGGCCTTGTCCATTTCCTATGGCCGACTCCAGCCC
TTGGGTTCATATTACCCTAGGTGATGGCAGCACCTTCCAGACCAAATTGTTGATAGGTGCAGATGGTCAC
AACTCCGGAGTACGGCAGGCTGTTGGAATCCAGAATGTGAGCTGGAACTATGACCAGTCTGCTGTTGTGG
CTACTCTGCATTTATCAGAGGCCACAGAAAACAACGTAGCCTGGCAGAGATTTCTTCCCTCTGGGCCTAT
TGCTCTGCTCCCGCTCTCAGACACCTTGAGTTCCTTGGTTTGGTCCACGTCCCATGAACATGCAGCAGAG
CTAGTTAGCATGGATGAGGAAAAATTTGTGGATGCCGTTAACTCTGCCTTTTGGAGTGATGCTGACCACA
CGGACTTCATCGACACAGCTGGTGCCATGCTGCAGTATGCTGTCAGCCTTCTGAAGCCCACTAAGGTCTC
GGCTCGCCAGCTGCCCCCAAGCGTAGCCAGGGTGGATGCCAAAAGCCGAGTTCTGTTTCCTCTTGGGTTG
GGACATGCTGCTGAGTACGTCAGGCCTCGGGTGGCGCTCATTGGGGATGCAGCCCACAGAGTCCATCCGC
TTGCAGGACAGGGTGTCAACATGGGCTTTGGGGATATCTCCAGCTTGGCCCATCACCTCAGTACGGCAGC
CTTCAATGGGAAGGACTTAGGTTCCGTGAGCCACCTCACAGGTTATGAAACAGAAAGACAGCGTCACAAC
ACTGCTCTTCTGGCTGCTACAGACTTACTAAAAAGGCTCTATTCTACCAGTGCCTCCCCGCTTGTGTTGC
TCAGGACGTGGGGCTTGCAGGCCACAAATGCAGTGTCTCCACTCAAAGAACAGATTATGGCCTTTGCAAG
CAAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC204353 protein sequence
Red=Cloning site Green=Tags(s)

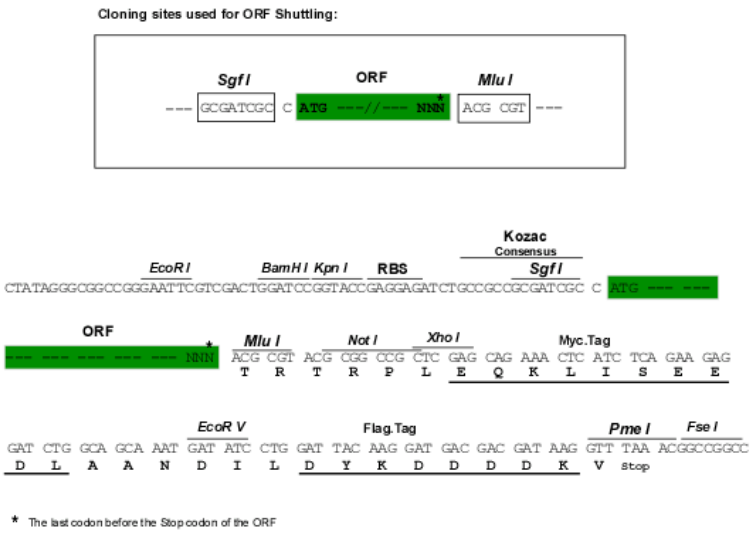
MAARLVSRCGAVRAAPHSGPLVSWRRWSGASTDTVYDVVVSGGGLVGAAMACALGYDIHFHDKKILLLEA
GPKKVLEKLSETYSNRVSSISPGSATLLSSFGAWDHICNMRYRAFRRMQVWDACSEALIMFDKDNLDDMG
YIVENDVIMHALTKQLEAVSDRVTVLYRSKAIRYTWPCPFPMADSSPWVHITLGDGSTFQTKLLIGADGH
NSGVRQAVGIQNVSWNYDQSAVVATLHLSEATENNVAWQRFLPSGPIALLPLSDTLSSLVWSTSHEHAAE
LVSMDEEKFVDAVNSAFWSDADHTDFIDTAGAMLQYAVSLLKPTKVSARQLPPSVARVDAKSRVLFPLGL
GHAAEYVRPRVALIGDAAHRVHPLAGQGVNMGFGDISSLAHHLSTAAFNGKDLGSVSHLTGYETERQRHN
TALLAATDLLKRLYSTSASPLVLLRTWGLQATNAVSPLKEQIMAFASK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6421_b09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_182476

ORF Size: 1404 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_182476.3

RefSeq Size: 1615 bp

RefSeq ORF: 1407 bp

Locus ID: 51004

UniProt ID: Q9Y2Z9

Cytogenetics: 14q24.3

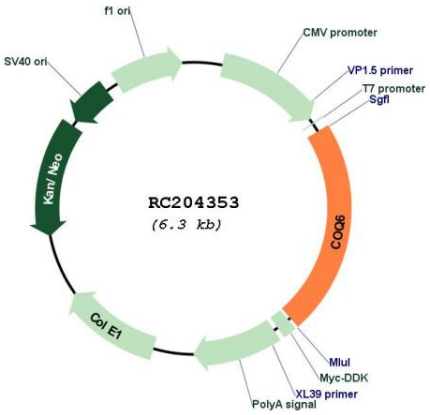
Protein Families: Druggable Genome

Protein Pathways: Metabolic pathways, Ubiquinone and other terpenoid-quinone biosynthesis

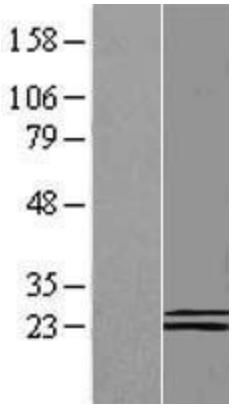
MW: 50.9 kDa

Gene Summary: The protein encoded by this gene belongs to the ubiH/COQ6 family. It is an evolutionarily conserved monooxygenase required for the biosynthesis of coenzyme Q10 (or ubiquinone), which is an essential component of the mitochondrial electron transport chain, and one of the most potent lipophilic antioxidants implicated in the protection of cell damage by reactive oxygen species. Knockdown of this gene in mouse and zebrafish results in decreased growth due to increased apoptosis. Mutations in this gene are associated with autosomal recessive coenzyme Q10 deficiency-6 (COQ10D6), which manifests as nephrotic syndrome with sensorineural deafness. Alternatively spliced transcript variants encoding different isoforms have been described for this gene. [provided by RefSeq, Jun 2012]

Product images:



Circular map for RC204353



Western blot validation of overexpression lysate (Cat# [LY405540]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204353 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).