

Product datasheet for SC307400

COQ6 (NM_182480) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	COQ6 (NM_182480) Human Untagged Clone
Tag:	Tag Free
Symbol:	COQ6
Synonyms:	CGI-10; CGI10; COQ10D6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC307400 representing NM_182480. Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGCGGGGCCAGGGTCCACCCCTTTCTAGCTTTGGCGTCTGGTTGGCTTCCAGGGCAGCCTCCGATCCA
TCCCGCCCGAGGAGGCAAGGATATGATATTCACCTTTATGACAAGAAAATCCTGTTGCTCGAAGCAGGT
CCAAAGAAAGTACTGGAGAAATTGTCAGAACTTACAGCAACAGGGTCAGCTCCATTTCCCTGGCTCT
GCAACGCTTCTCAGTAGTTTTGGTGCCTGGGACCATATCTGCAACATGAGATACAGAGCCTTTCCGCGA
ATGCAAGTGTGGGACGCCTGCTCAGAGGCCCTGATAATGTTTGATAAGGATAATTTAGATGACATGGGC
TATATCGTGGAGAATGATGTCATCATGCATGCTCTCACTAAGCAGTTGGAGGCTGTGCTGACCGAGTG
ACGGTTCTCTACAGGAGCAAAGCCATTCGCTATACCTGGCCTTGCCATTTCTATGGCCGACTCCAGC
CCTTGGTTTCATATTACCCTAGGTGATGGCAGCACCTTCCAGACCAAATGTTGATAGGTGCAGATGGT
CACAACCTCCGGAGTACGGCAGGCTGTTGGAATCCAGAATGTGAGCTGGAATATGACCAGTCTGCTGTT
GTGGTACTCTGCATTTATCAGAGGCCACAGAAAACACGTAGCCTGGCAGAGATTTCTTCCCTCTGGG
CCTATTGCTCTGCTCCGCTCTCAGACACCTTGAGTTCCTTGGTTTGGTCCACGTCCCATGAACATGCA
GCAGAGCTAGTTAGCATGGATGAGGAAAAATTTGTGGATGCCGTTAACTGCTCTTTGGAGTGTGCT
GACCACACGACTTCATCGACACAGCTGGTGCCATGCTGCAGTATGCTGTCAGCCTTCTGAAGCCACT
AAGGTCTCGGCTCGCCAGCTGCCCAAGCGTAGCCAGGGTGGATGCCAAAAGCCGAGTTCTGTTTCCCT
CTTGGGTTGGGACATGCTGCTGAGTACGTACGGCCTCGGGTGGCGCTCATTGGGGATGCAGCCACAGA
GTCCATCCGCTTGCAGGACAGGGTGTCAACATGGGCTTTGGGGATATCTCCAGCTTGGCCCATCACCTC
AGTACGGCAGCCTTCAATGGGAAGGACTTAGGTTCCGTGAGCCACCTCACAGTTATGAAACAGAAAAGA
CAGCGTCACAACACTGCTCTTCTGGCTGTACAGACTTACTAAAAAGGCTCTATTCTACCAGTGCCTCC
CCGCTTGTGTTGCTCAGGACGTGGGGCTTGAGGCCACAAATGCAGTGTCTCCACTCAAAGAACAGATT
ATGGCCTTTCGAAGCAAAATGA
ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGCGC
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Restriction Sites:	Sgfl-Mlul
Plasmid Map:	□
ACCN:	NM_182480
Insert Size:	1332 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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:	<ol style="list-style-type: none">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_182480.2
RefSeq Size:	1618 bp
RefSeq ORF:	1332 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:	48.6 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]

Transcript Variant: This variant (2) differs in the 5' UTR and 5' coding region, and uses an alternate start codon, compared to variant 1. The resulting isoform (b) has a distinct N-terminus and is shorter than isoform a.