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Product datasheet for RG217898

COQ6 (NM_182480) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	COQ6 (NM_182480) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	COQ6
Synonyms:	CGI-10; CGI10; COQ10D6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>RG217898 representing NM_182480
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGATATTCACTTTCATGACAAGAAAATCCTGTTGCTCGAAGCAGGTCCAAAGAAAGTACTGGAGAAATT
GTCAGAAACTTACAGCAACAGGGTCAGCTCCATTTCCCCTGGCTCTGCAACGCTTCTCAGTAGTGTGGGA
CGCCTGCTCAGAGGCCCTGATAATGTTTGATAAGGATAATTTAGATGACATGGGCTATATCGTGGAGAAT
GATGTCATCATGCATGCTCTCACTAAGCAGTTGGAGGCTGTGTCTGACCGAGTGACGGTTCTCTACAGGA
GCAAAGCCATTCGCTATACCTGGCCTTGTCCATTTCCTATGGCCGACTCCAGCCCTTGGGTTCATATTAC
CCTAGGTGATGGCAGCACCTTCCAGACCAAATTGTTGATAGGTGCAGATGGTCACAACTCCGGAGTACGG
CAGGCTGTTGGAATCCAGAATGTGAGCTGGAACTATGACCAGTCTGCTGTTGTGGCTACTCTGCATTTAT
CAGAGGCCACAGAAAACAACGTAGCCTGGCAGAGATTTCTTCCCTCTGGGCCTATTGCTCTGCTCCCGCT
CTCAGACACCTTGAGTTCCTTGGTTTGGTCCACGTCCCATGAACATGCAGCAGAGCTAGTTAGCATGGAT
GAGGAAAAATTTGTGGATGCCGTTAACTCTGCCTTTTGGAGTGATGCTGACCACACGGACTTCATCGACA
CAGCTGGTGCCATGCTGCAGTATGCTGTCAGCCTTCTGAAGCCCACTAAGGTCTCGGCTCGCCAGCTGCC
CCCAAGCGTAGCCAGGGTGGATGCCAAAAGCCGAGTTCTGTTTCCTCTTGGGTTGGGACATGCTGCTGAG
TACGTCAGGCCTCGGGTGGCGCTCATTGGGGATGCAGCCCACAGAGTCCATCCGCTTGCAGGACAGGGTG
TCAACATGGGCTTTGGGGATATCTCCAGCTTGGCCCATCACCTCAGTACGGCAGCCTTCAATGGGAAGGA
CTTAGGTTCCGTGAGCCACCTCACAGGTTATGAAACAGAAAGACAGCGTCACAACACTGCTCTTCTGGCT
GCTACAGACTTACTAAAAAGGCTCTATTCTACCAGTGCCTCCCCGCTTGTGTTGCTCAGGACGTGGGGCT
TGCAGGCCACAAATGCAGTGTCTCCACTCAAAGAACAGATTATGGCCTTTGCAAGCAAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

View online »

Protein Sequence:

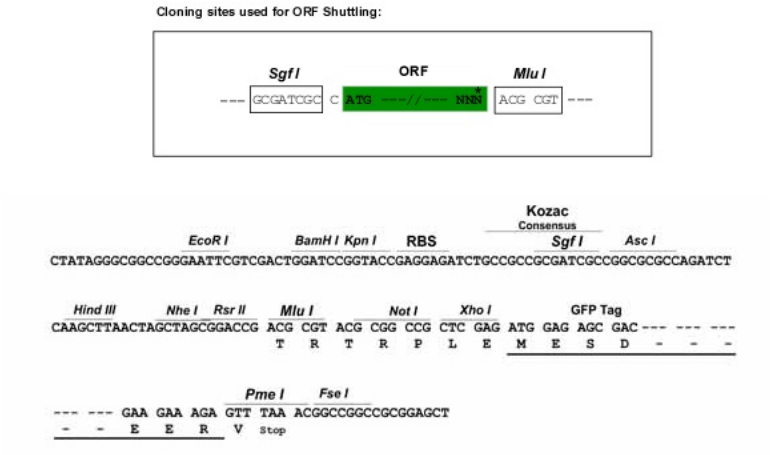
>RG217898 representing NM_182480
Red=Cloning site Green=Tags(s)

MIFTFMTRKSCCSKQVQRKYWRNCQKLTATGSAPFPLALQRFSVVWDACSEALIMFDKDNLDDMGYIVEN
DVIMHALTKQLEAVSDRVTVLYRSKAIRYTWPCPFPMADSSPWVHITLGDGSTFQTKLLIGADGHNSGVR
QAVGIQNVSWNYDQSAVVATLHLSEATENNVAWQRFLPSGPIALLPLSDTLSSLVWSTSHEHAAELVSMD
EEKFVDAVNSAFWSDADHTDFIDTAGAMLQYAVSLLKPTKVSARQLPPSVARVDAKSRVLFPLGLGHAAE
YVRPRVALIGDAAHRVHPLAGQGVNMGFGDISSLAHHLSTAAFNGKDLGSVSHLTGYETERQRHNTALLA
ATDLLKRLYSTSASPLVLLRTWGLQATNAVSPLKEQIMAFASK

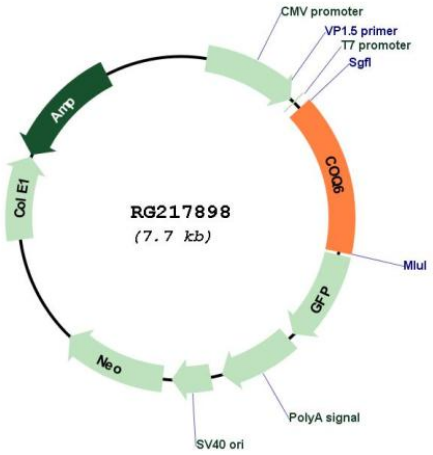
TRTRPLE – GFP Tag – V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_182480

ORF Size:	1179 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_182480.1, NP_872286.1
RefSeq Size:	1553 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
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]