

Product datasheet for **RG229211**

COQ2 (NM_015697) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	COQ2 (NM_015697) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	COQ2
Synonyms:	CL640; COQ10D1; MSA1; PHB:PPT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG229211 representing NM_015697 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGACCCCAATTTACAAGTAAGGATGAGGAAAGGTTCTGCCACACCGCCGCCAGCCTGGCAGACTAG
GATTGCATCCTGCGGGTGCCACTGCGCATGCCTGCCGGGAATGACGTCAATCCGAGCTCGTCCCGGCT
CACCAGCGCCATGCTGGGCTCGGAGCCGCGGGTTCGCGGGGCTGCGGGCTGTGGCACTGGCGTGG
CTGCCGGGCTGGCGGGCCGCTCCTTCGCCTGGCGCTGCGGCAGGCGGCCACGGTGGTACTTGC
AGCCCCCGCCTGTCCCAGCCGCGGGGCCAGCTCAGTTTGTCCGCGGGCGGTGGTGGACTCTGC
GCCCGCCCCCTGCAGCCGACTTTCGCCTCATGCGTTGGACAAGCCATTGGAACCTGGCTTCTGTAT
TTACCATGTACCTGGAGCATTGGTTTGGCAGCTGAACCAGTTGTTTTCCAGATTGGTACATGCTCTCCC
TCTTTGGCACTGGAGCTATTCTGATGCGTGGAGCAGGCTGTACTATTAATGACATGTGGACCAGGACTA
TGATAAAAAGGTTACAAGAACAGCCAATCGTCCAATAGCCGCTGGAGACATTTCACTTTTCAGTCTTT
GTTTTTCTGGGGGACAGCTAACCTGGCACTGGGTGTTCTTCTGTGTCTAAATTAACAGTATAGCTC
TGGGAGCAGGATCCTTACTTCTGTGCATCACCTACCCACTAATGAAAAGAATTTCACTGGCCTCACT
AGCCTTGGGCTTGACATTTAATTGGGAGCGTTACTTGGATGGTCTGCTATCAAGGGTTCCTGTGATCCA
TCTGTTTGCTGCCTCTTATTTTCTGGAGTTATGTTGACACTAATATATGATACTATTTATGCCATC
AGGACAAAAGAGATGATGTTTTGATTGGTCTTAAGTCAACGGCTCTGCGGTTCCGAGAAAATACCAAGCC
GTGGCTCAGCGGCTTCAGTGTGCAATGCTGGGGCACTGAGCCTAGTGGTGTGAACAGTGGACAGACT
GCTCCCTACTACGCTGCCTGGGTGCTGTAGGAGCCCATCTGACTCACCAGATTTACTCTAGACATCC
ACAGACCTGAGGATTGTTGGAATAAATTTATCTCCAACCGAAGCACTGGGACTAATAGTTTTTTAGGGAT
TGTCTTGGGAATTTGTGGAAAGAAAAGAAGACAGACAAAACAAAGAAGGTATAGAGAATAAATAGAA
AAT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG229211 representing NM_015697
 Red=Cloning site Green=Tags(s)

MTPISQVRMRKGSAAHTAAQPGRLLHPAGATAHACRGMSTIRARPGLTSAMLGSRAGFARGLRAVALAW
 LPGWRGRSFALARAAGAPHGGDLQPPACPEPRGRQLSLAAAVVDSAPRPLQPYLRMLRLDKPIGTWLLY
 LPCTWSIGLAAEPGCFPDWYMLSLFGTGAILMRGAGCTINDMWDQDYDKKVRTANRPIAAGDISTFQSF
 VFLGGQLTLALGVLLCLNYYSIALGAGSLLLVIITYPLMKRISYWPQLALGLTFNWGALLGWSAIGSCDP
 SVCLPLYFSGVMWTLIYDTIYAHQDKRDDVLIIGLKSTALRFGENTKPWLSGFSVAMLGALSLVGVNSGQT
 APYYAALGAVGAHLTHQIYTLDIHRPEDCWNKFI SNRTLGLIVFLGIVLGNLWKEKTKDKTKKGIENKIE
 N

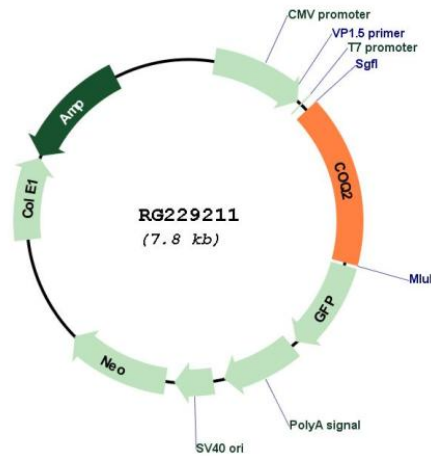
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_015697

ORF Size:	1263 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:	<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_015697.8
RefSeq Size:	1657 bp
RefSeq ORF:	1266 bp
Locus ID:	27235
Cytogenetics:	4q21.22-q21.23
Protein Families:	Transmembrane
Protein Pathways:	Ubiquinone and other terpenoid-quinone biosynthesis
Gene Summary:	This gene encodes an enzyme that functions in the final steps in the biosynthesis of CoQ (ubiquinone), a redox carrier in the mitochondrial respiratory chain and a lipid-soluble antioxidant. This enzyme, which is part of the coenzyme Q10 pathway, catalyzes the prenylation of parahydroxybenzoate with an all-trans polyprenyl group. Mutations in this gene cause coenzyme Q10 deficiency, a mitochondrial encephalomyopathy, and also COQ2 nephropathy, an inherited form of mitochondriopathy with primary renal involvement. [provided by RefSeq, Oct 2009]