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Product datasheet for RG209204

COX4 (COX4I2) (NM_032609) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	COX4 (COX4I2) (NM_032609) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	COX4
Synonyms:	COX4; COX4-2; COX4B; COX4L2; COXIV-2; dJ857M17.2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>RG209204 representing NM_032609
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCTCCCCAGAGCTGCCTGGAGCTTGGTGCTGAGGAAAGGTGGAGGTGGAAGACGAGGGATGCACAGCT
CAGAAGGCACCACCCGTGGTGGGGGGAAGATGTCCCCCTACACCAACTGCTATGCCCAGCGCTACTACCC
CATGCCAGAAGAGCCCTTCTGCACAGAACTCAACGCTGAGGAGCAGGCCCTGAAGGAGAAGGAGAAGGGA
AGCTGGACCCAGCTGACCCACGCCGAAAAGGTGGCCTTGTACCGGCTCCAGTTCAATGAGACCTTTGCGG
AGATGAACCGTCGCTCCAATGAGTGGAAGACAGTGATGGGTTGTGTCTTCTTCTTCATTGGATTCGCAGC
TCTGGTGATTTGGTGGCAGCGGGTCTACGTATTTCCTCCAAAGCCGATCACCTTGACGGACGAGCGGAAA
GCCCAGCAGCTGCAGCGCATGCTGGACATGAAGGTGAATCCTGTGCAGGGCCTGGCCTCCCGCTGGGACT
ATGAGAAGAAGCAGTGGAAGAAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG209204 representing NM_032609
Red=Cloning site Green=Tags(s)

MLPRAAWSLVLRKGGGGRRGMHSSEGTTRGGGKMSPYTNCYAQRYYPMPEEPFCTELNAEEQALKEKEKG
SWTQLTHAEKVALYRLQFNETFAEMNRRSNEWKTVMGCVFFFIGFAALVIWWQRVYVFPPKPITLTDERK
AQQLQRMLDMKVNPVQGLASRWDYEKKQWKK

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

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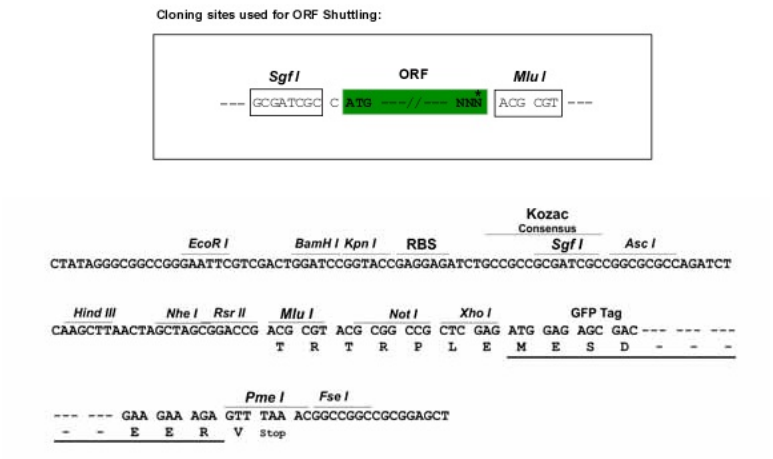
Cloning Scheme:



ACCN:	NM_032609
ORF Size:	513 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_032609.3
RefSeq Size:	684 bp
RefSeq ORF:	516 bp
Locus ID:	84701
UniProt ID:	Q96KJ9

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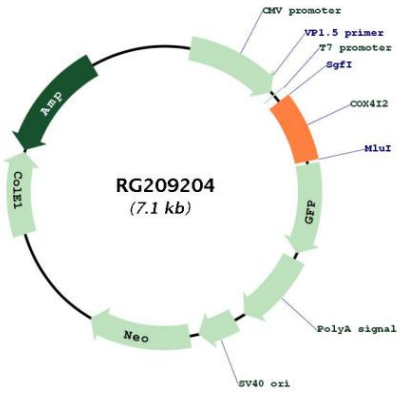
Cytogenetics: 20q11.21

Protein Families: Transmembrane

Protein Pathways: Alzheimer's disease, Cardiac muscle contraction, Huntington's disease, Metabolic pathways, Oxidative phosphorylation, Parkinson's disease

Gene Summary: Cytochrome c oxidase (COX), the terminal enzyme of the mitochondrial respiratory chain, catalyzes the electron transfer from reduced cytochrome c to oxygen. It is a heteromeric complex consisting of 3 catalytic subunits encoded by mitochondrial genes and multiple structural subunits encoded by nuclear genes. The mitochondrially-encoded subunits function in electron transfer, and the nuclear-encoded subunits may be involved in the regulation and assembly of the complex. This nuclear gene encodes isoform 2 of subunit IV. Isoform 1 of subunit IV is encoded by a different gene, however, the two genes show a similar structural organization. Subunit IV is the largest nuclear encoded subunit which plays a pivotal role in COX regulation. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG209204

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