

Product datasheet for **RG210485**

COX6A1 (NM_004373) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: COX6A1 (NM_004373) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: COX6A1
Synonyms: CMTRID; COX6A; COX6AL
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG210485 representing NM_004373
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGGTAGTTGGTGTGTCTCGGTTTCTCGGCTGCTGGGTCCGTCGCCACAGCTGGGGCGGCCTA
TGTCGAGTGGCGCCATGGCGAAGAGGGCTCAGCTCGCATGTGGAAGACTCTCACCTTCTCGTCGCGCT
CCCCGGGTGGCAGTCAGCATGCTGAATGTGTACCTGAAGTCGCACCACGGAGAGCACGAGAGACCCGAG
TTCATCGCTACCCCATCTCCGCATCAGGACCAAGCCGTTCCCTGGGAGATGGAACCATACTCTAT
TCCATAACCTCATGTGAATCCACTTCCAAGTACGAAGATGAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG210485 representing NM_004373
Red=Cloning site Green=Tags(s)
MAVVGVSYSRLLGRSRPQLGRPMSSGAHGEEGSARMWKTLTFFVALPGVAVSMLNVYLKSHHGEHERPE
FIAYPHLRIRTKPFPGDGNHTLFHNPHVNPLPTGYEDE

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI



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Cloning Scheme:


ACCN: NM_004373

ORF Size: 327 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.

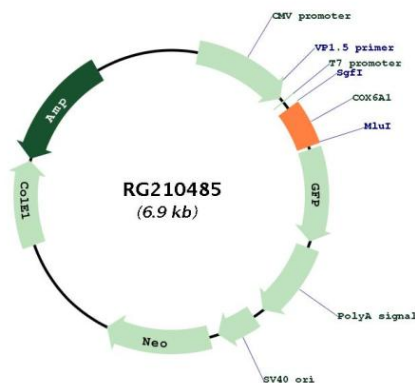
RefSeq: [NM_004373.4](#)

RefSeq Size: 548 bp

RefSeq ORF: 330 bp

Locus ID:	1337
UniProt ID:	P12074
Cytogenetics:	12q24.2
Protein Families:	Transmembrane
Protein Pathways:	Alzheimer's disease, Cardiac muscle contraction, Huntington's disease, Metabolic pathways, Oxidative phosphorylation, Parkinson's disease
Gene Summary:	<p>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 the electron transfer and the nuclear-encoded subunits may function in the regulation and assembly of the complex. This nuclear gene encodes polypeptide 1 (liver isoform) of subunit VIa, and polypeptide 1 is found in all non-muscle tissues. Polypeptide 2 (heart/muscle isoform) of subunit VIa is encoded by a different gene, and is present only in striated muscles. These two polypeptides share 66% amino acid sequence identity. It has been reported that there may be several pseudogenes on chromosomes 1, 6, 7q21, 7q31-32 and 12. However, only one pseudogene (COX6A1P) on chromosome 1p31.1 has been documented. [provided by RefSeq, Jul 2008]</p>

Product images:



Circular map for RG210485