

## Product datasheet for **RG215973**

### COX7A2 (NM\_001865) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** COX7A2 (NM\_001865) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** COX7A2  
**Synonyms:** COX7AL; COX7AL1; COXVIIa-L; COXVIIAL; VIIAL  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG215973 representing NM\_001865  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAAACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCCGATCGCC

ATGCTGTGGAATCTGCTGGCTCTTCGTCAGATTGGGCAGAGGACGATAAGCACTGCTTCCCGCAGGCATT  
TTAAAAATAAAGTTCCGGAGAAGCAAAACTGTTCCAGGAGGATGATGAAATCCACTGTATCTAAAGGG  
TGGGGTAGCTGATGCCCTCCTGTATAGAGCCACCATGATTCTTACAGTTGGTGAACAGCATATGCCATA  
TATGAGCTGGCTGTGGCTTCATTCCCAAGAAGCAGGAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG215973 representing NM\_001865  
Red=Cloning site Green=Tags(s)  
 MLWNLLALRQIGQRTISTASRRHFKNKVPEKQKLFQEDDEIPLYLKGGVADALLYRATMILTVGGTAYAI  
 YELAVASFPKKQE

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI


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Cloning Scheme:



**ACCN:** NM\_001865

**ORF Size:** 249 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:**

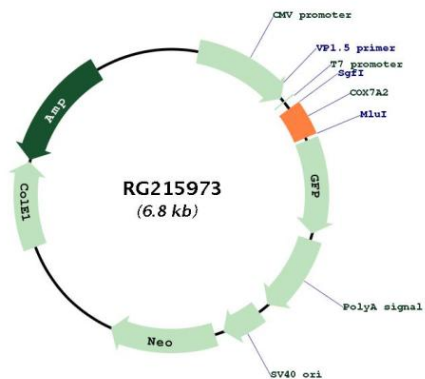
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq:	<u>NM_001865.2, NP_001856.1</u>
RefSeq Size:	470 bp
RefSeq ORF:	252 bp
Locus ID:	1347
UniProt ID:	<u>P14406</u>
Cytogenetics:	6q14.1
Domains:	COX7a
Protein Families:	Transmembrane
Protein Pathways:	Alzheimer's disease, Cardiac muscle contraction, Huntington's disease, Oxidative phosphorylation, Parkinson's disease

**Gene Summary:** Cytochrome c oxidase, the terminal component of the mitochondrial respiratory chain, catalyzes the electron transfer from reduced cytochrome c to oxygen. This component is a heteromeric complex consisting of three catalytic subunits encoded by mitochondrial genes, and multiple structural subunits encoded by nuclear genes. The mitochondrially-encoded subunits function in electron transfer, while the nuclear-encoded subunits may function in the regulation and assembly of the complex. This nuclear gene encodes polypeptide 2 (liver isoform) of subunit VIIa, with this polypeptide being present in both muscle and non-muscle tissues. In addition to polypeptide 2, subunit VIIa includes polypeptide 1 (muscle isoform), which is present only in muscle tissues, and a related protein, which is present in all tissues. Alternative splicing results in multiple transcript variants. Related pseudogenes have been identified on chromosomes 4 and 14. [provided by RefSeq, Oct 2009]

## Product images:



Circular map for RG215973