

## Product datasheet for **SC118990**

### COX7A2 (NM\_001865) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	COX7A2 (NM_001865) Human Untagged Clone
Tag:	Tag Free
Symbol:	COX7A2
Synonyms:	COX7AL; COX7AL1; COXVIIa-L; COXVIIAL; VIIAL
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_001865, the custom clone sequence may differ by one or more nucleotides

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ATGCATACGCAAGACTCGGAGGTAGTTCGGTTCGGCGTGGCCATTTTCGTTGGTGGTGTTCAGTTGTG
GCGGTTGCTGGTCAGTAACAGCCAAGATGCTGCGGAATCTGCTGGCTCTTCGTCAGATTGGGCAGAGGAC
GATAAGCACTGCTTCCCGCAGGCATTTAAAAATAAAGTTCGGAGAAGCAAAAAGTGTCCAGGAGGAT
GATGAAATCCACTGTATCTAAAGGGTGGGGTAGCTGATGCCCTCCTGTATAGAGCCACCATGATTCTTA
CAGTTGGTGGAACAGCATATGCCATATATGAGCTGGCTGTGGCTTCATTTCCAAGAAGCAGGAGTGA
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<b>5' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 5' read for NM_001865 unedited            TCACTATTTTGTAAATACGACTCACTATAGGGCGGCCGCGNATTCGGCACGAGGGTTCAGT            TGTGGCGGTTGCTGGTCACTAACAGCCAAGATGCTGCGGAATCTGCTGGCTCTTCGTCAG            ATTGGGCAGAGGACGATAAGCACTGCTTCCCGCAGGCATTTTAAAAATAAAGTCCCGGAG            AAGCAAAACTGTTCCAGGAGGATGATGAAATCCACTGTATCTAAAGGGTGGGTAGCT            GATGCCCTCCTGTATAGAGCCACCATGATTCTTACAGTTGGTGGAAACAGCATATGCCATA            TATGAGCTGGCTGTGGCTTCATTTCCCTAAGAAGCAGGAGTGACTTCAGTCATCCCAGCAA            TCGCTTGGTTTCAGTTTCATTCAGCTCTCTATGGACCAGTAATCTGATAAAATAACCGAGCT            CTTCTTTGGGGATCAATATTTATTGACTTGTAGTAACTGCCACCAATAAAGCAGTCTTTA            CCATGAAAAAAAAAAAAAAAAAACTCCACTCTAGATTGCGGCCGCGGTACATAGCTGTTTC            CTGAACAGATCCCGGGTGGCATCCCTGTGACCCCTCCCAGTGCCTCTCCTGGCCCTGGA            AGTTGCCACTCCAGTGCCACCAGCCTTGTCTAATAAAATTAAGTTGCATATTTTGTCT            TGACTAGTGTCTTCTATATATTATGGGGTGGAGGGGGTGGTATGGAGCAAGGGGCAA            GTTGGGAAGACAACCTGTANGCCCTGCGNGTCTATTGNGAACCAAGCTGGAGTGCAGTG            GCACAATCTTGGGCTCACTGCATCTCCGNTCCTGGGTTCAAGCGATTCTCCTGCCTCAG            CCTCCCGAGNNTGTTGGATTNCCAGCATGCATGACCCAGCTCAGCTAATNTNGNTTTT            TGGTAGAGACGGGGTTTACCATATGGGCCAGCTGGTCTCCACTNCTATCTCAGN</p>
<b>3' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 3' read for NM_001865 unedited            GGCCGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTTTCTGGTAAAGACTGCTTTATTGG            TGGCAGTTACTACAAGTCAATAAATATTGATCCCCAAACAAGAGCTCGGTATTTTATCAG            ATTACTGGTCCATAGAGAGCTGAATGAACTGAACCAAGCGATTGCTGGGATGACTGAAG            TCACTCCTGCTTCTTAGGAAATGAAGCCACAGCCAGCTCATATATGGCATATGCTGTTCC            ACCAACTGTAAGAATCATGGTGGCTCTATACAGGAGGGCATCAGCTACCCACCCTTTAG            ATACAGTGAATTTATCATCTCCTCTGGAACAGTTTTTGTCTCTCCGGAACCTTTATTTT            AAAATGCCTGCGGGAAGCAGTGCTTATCGTCTCTGCCAATCTGACGAAGAGCCAGCAG            ATTCGCGCAGCATCTTGGCTGTTACTGACCAGCAACCGCCACAACCTGAACCTCGTGCCGA            ATTCGCGGCCGCCCTATAGTGAGTCGTATTACAAAATTTGACGGCTCACTAAACGAGCT            CTGCTTATATAGACCTCCCACCGTACACGCCTACCGCCATTTGCCGCCCCGGGGCGGG            GTAATGGGGTGGAGACTTTGAAAATTCCGGGGAGGAAAACCGCTATCCCGCCCATGGGG            GTCGCCGCCACCCGCTTCCACCTGGTTACTAGCGGCGGACTATACCCCTAACGCCCTG            CCAAGATGAAAAAGCTCCGCAAGGGCACTGCCCGGCATAATGGCCCCGCGGCCACTTA            CCGGTTTTGGACGGCAATAAGGGGGCCGGACCTGGGAATTTACACACCCGTGAGGTCTC            GCGAANGGGGCCGCTTAACCGCAAATCTCCCCCTTTGCCGCCCCGAGAAGTCTCTTCG            TCGCCTCTATCGCGCCCCAACCTCTTNTCTTCCGCCCTATGGTGCGGGCCCGCGTGGCG            CGCGGATACCCCGCCGCTCTTACC CGCGCNCCTCGCCCGCGCGCTCTCTAT            CGNGCTTGANANTACGGCACCTN</p>
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_001865
<b>Insert Size:</b>	5310 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>Components:</b>	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\\_001865.2](#), [NP\\_001856.1](#)

**RefSeq Size:** 470 bp

**RefSeq ORF:** 252 bp

**Locus ID:** 1347

**UniProt ID:** [P14406](#)

**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]

Transcript Variant: This variant (1) encodes the longer isoform (a). Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.