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# Product datasheet for SC116905

## COX6A2 (NM_005205) Human Untagged Clone

### Product data:

| | |
|---|---|
| **Product Type:** | Expression Plasmids |
| **Product Name:** | COX6A2 (NM_005205) Human Untagged Clone |
| **Tag:** | Tag Free |
| **Symbol:** | COX6A2 |
| **Synonyms:** | COX6AH; COXVIAH; MC4DN18 |
| **Mammalian Cell Selection:** | None |
| **Vector:** | pCMV6-XL5 |
| **E. coli Selection:** | Ampicillin (100 ug/mL) |
| **Fully Sequenced ORF:** | >OriGene ORF sequence for NM_005205 edited<br>ATGGCTTTGCCTCTGAGGCCCCTGACCCGGGGCTTGGCCAGCGCTGCCAAAGGAGGCCAC<br>GGAGGAGCAGGAGCTCGTACCTGGCGTCTGCTGACCTTCGTGCTGGCGCTGCCCAGCGTG<br>GCCCTCTGCACCTTCAACTCCTATCTCCACTCGGGCCACCGCCCGCGCCCCGAGTTCCGT<br>CCCTACCAACACCTCCGCATCCGCACCAAGCCCTACCCCTGGGGGGACGGCAACCACACT<br>CTGTTCCACAATAGCCACGTGAACCCTCTGCCCACGGGCTACGAACACCCCTGA |
| **5' Read Nucleotide Sequence:** | >OriGene 5' read for NM_005205 unedited<br>NGTCAAAATTTGTATACGACTCATATAGGCGGCCGCGNAATTCGCACGAGGATCATGGCT<br>TTGCCTCTGAGGCCCCTGACCCGGGGCTTGGCCAGCGCTGCCAAAGGAGGCCACGGAGGA<br>GCAGGAGCTCGTACCTGGCGTCTGCTGACCTTCGTGCTGGCGCTGCCCAGCGTGGCCCTC<br>TGCACCTTCAACTCCTATCTCCACTCGGGCCACCGCCCGCGCCCCGAGTTCCGTCCCTAC<br>CAACACCTCCGCATCCGCACCAAGCCCTACCCCTGGGGGGACGGCAACCACACTCTGTTC<br>CACAATAGCCACGTGAACCCTCTGCCCACGGGCTACGAACACCCCTGAGGCCCCGGACGC<br>CCCCGGACACAATAAAGGTGTGAAGCTTCGAAAAAAAAAAAAAAAAAAACTCGACTCTAGA<br>TTGCGGCCGCGGTCATAGCTGTTTCCTGAACAGATCCCGGGTGGCATCCCTGTGACCCCT<br>CCCCAGTGCCTCTCCTGGCCCTGGAAGTTGCCACTCCAGTGCCCACCAGCCTTGTCCTAA<br>TAAAATTAAGTTGCATCATTTTGTCTGACTAGGTGTCCTTCTATAATATTATGGGGTGGA<br>GGGGGGTGGTATGGAGCAAGGGGCAAGTTGGGAAGACAACCTGTAGGGCCTGCGGGGTCT<br>ATTGGGAACCAAGCTGGAGTGCAGTGGCACAATCTTGGCTCACTGCAATCTCCGCCTCCT<br>GGGTTCAAGCGATTCTCCTGCCTCAGCCTCCCGAGNTGTTGGGGATTCCAGGCATGCATG<br>ACCAGGCTCAGCTAATTTTTGGTTTTTTGGTAGAAACCGGGTTTCACCATATGGNCCAGG<br>CTGGTCTCCAACTCCTATCTCAGGTGATCTACCCACCTTGGCCTNCCANNATGCTGGGAT<br>ACAGGCGTGAACCCACTGCTCCTTNCCTGTNCCTCTGATTTTAAATACTTACCACGGGGA<br>GGACGTTCAGAC |



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**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM_005205 unedited
GAGTCGAGTTTTTTTTTTTTTTTTTTCGAAGCTTCACACCTTTATTGTGTCCGGGGGCGT
CCGGGGCCTCAGGGGTGTTCGTAGCCCGTGGGCAGAGGGTTCACGTGGCTATTGTGGAAC
AGAGTGTGGTTGCCGTCCCCCCAGGGGTAGGGCTTGGTGCGGATGCGGAGGTGTTGGTAG
GGACGGAACTCGGGGCGCGGGCGGTGGCCCGAGTGGAGATAGGAGTTGAAGGTGCAAAGG
GCCACGCTGGGCAGCGCCAGCACGAAGGTCAGCAGACGCCAGGTACGAGCTCCTGCTCCT
CCGTGGCCTCCTTTGGCAGCGCTGGCCAAGCCCCGGGTCAGGGGCCTCAGAGGCAAAGCC
ATGATCCTCGTGCCGAATTCGCGGCCGCCCTATAGTGAGTCGTATTACAAATTCTGACGG
TTCACTAAACGAGCTCTGCTTATATAGACCTTCCACCGTACCGCCTACCGCCCATTTTGG
TCAACGGGGCGGGGTTATTACACCTTTGGAAAGACCGTTGATTTTGTGGCAAAACAACTC
CATTGACGCAATGGGGTGGCACTCGCAATTCTTTGAACAAACCCGTTAACCCCTTTGTGC
CCTGGCAACCCCCTCTCTTGTGTTTACCTACTCCCCCCTATTTTTGCACTTACCAATCTC
TCCGCCCCCTCTCGCTTATGCCCCACCCCTTTCTCCCTATTCTTTCCTCCGGTGCCCCAC
CCCTTTTCCCCCCCCCTTTCCCCCTCCCCCCATTTTTCTCTTCCTCCCCCTCCCCTTACT
TTATTTTTCTTTTTTCACCGTCCCCCCCCCTTTCCGCCCAACCGCCGAACGCTGGAGTAT
TTTTTTTTTTTCCCTTCCTTAAACGCACTTTCANAAGTTCCCGCCCCGCACCTCACTCTC
TTTCCTTCCTCCTTATTCACTCCCCTATCGCCCCCGCATCCTCAGCCCATGTTCTTCCCT
TCACCCTCTCTCG

**Restriction Sites:** NotI-NotI

**ACCN:** NM_005205

**Insert Size:** 430 bp

**OTI Disclaimer:** 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).

**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_005205.2, NP_005196.1

**RefSeq Size:** 425 bp

**RefSeq ORF:** 294 bp

**Locus ID:** 1339

**UniProt ID:** Q02221

**Cytogenetics:** 16p11.2

**Domains:** COX6A

**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 polypeptide 2 (heart/muscle isoform) of subunit VIa, and polypeptide 2 is present only in striated muscles. Polypeptide 1 (liver isoform) of subunit VIa is encoded by a different gene, and is found in all non-muscle tissues. These two polypeptides share 66% amino acid sequence identity. [provided by RefSeq, Jul 2008]