

## Product datasheet for **SC101175**

### **MTCO2 (COX2) (NM\_173705) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	MTCO2 (COX2) (NM_173705) Human Untagged Clone
Tag:	Tag Free
Symbol:	MTCO2
Synonyms:	COII
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC101175 sequence for NM_173705 edited (data generated by NextGen Sequencing)

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ATGGCACATGCGCGCAAGTAGGTCTACAAGACGCTACTTCCCCTATCATAGAAGAGCTT
ATCACCTTTCATGATCACGCCCTCATAATCATTTTCCTTATCTGCTTCCTAGTCCTGTAT
GCCCTTTTCCTAACACTCACAACAAAATAACTAATACTAACATCTCAGACGCTCAGGAA
ATAGAAACCGTCTGAACTATCTGCCGCCATCATCTAGTCCTCATCGCCCTCCCATCC
CTACGCATCCTTTACATAACAGACGAGGTCAACGATCCCTCCCTTACCATCAAATCAATT
GGCCACCAATGGTACTGAACCTACGAGTACACCGACTACGGCGGACTAATCTTCAACTCC
TACATACTTCCCCATTATTCCTAGAACCAGGCGACCTGCGACTCCTTGACGTTGACAA
CGAGTAGTACTCCCGATTGAAGCCCCATTTCGTATAATAATTACATCACAAGACGCTTGG
CACTCATGAGCTGTCCCCACATTAGGCTTAAAAACAGATGCAATTCCCGGACGTCTAAAC
CAAACCACTTTCACCGCTACACGACCGGGGTATACTACGGTCAATGCTCTGAAATCTGT
GGAGCAAACCACAGTTTCATGCCATCGTCCTAGAATTAATTCCCCTAAAAATCTTTGAA
ATAGGGCCCGTATTTACCCTATAG
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Clone variation with respect to NM\_173705.1



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<b>5' Read Nucleotide Sequence:</b>	>OriGene 5' read for NM_173705 unedited ACGACTCACTATAGGGCGGCCGGAATTCGCACGAGGGNAAAAACCATTTTCATAACTTTG TCAAAGTTAAATTATAGGCTAAATCCTATATATCTTAATGGCACATGCAGCGCAAGTAGG TCTACAAGACGCTACTTCCCCTATCATAGAAGAGCTTATCACCTTTCATGATCACGCCCT CATAATCATTTTCCTTATCTGCTCCTAGTCCTGTATGCCCTTTTCTAACACTCACAAAC AAAATAACTAATACTAACATCTCAGACGCTCAGGAAATAGAAACCGTCTGAACTATCCT GCCCGCCATCATCCTAGTCCTCATCGCCCTCCCATCCCTACGCATCCTTTACATAACAGA CGAGGTCAACGATCCCTCCCTTACCATCAAATCAATTGGCCACCAATGGTACTGAACCTA CGAGTACACCGACTACGGCGGACTAATCTTCAACTCCTACATACTTCCCCCATTATTCT AGAACCAGGCGACCTGCGACTCCTTGACGTTGACAATCGAGTAGTACTCCCGATTGAAGC CCCCATTCGTATAATAATTACATCACAAGACGCTTGGCACTCATGAGCTGTCCCCACATT AGGCTTAAAAACAGATGCAATTCGCCGGACGCTAAACCAAACCACTTTCACCGTACAC GACCGGGGGTATACTACGGGTCAATGCTCTGAAATCTGTGGAGCANACCACAGTNTCAT GCCCATCGTCTAGAGTAAATCCCTAAAAATCTTTGAAATAGGGCCCGTATTTACCTA TAGCACCCCTCTACCCCTCTAGAGCCAAAAAAAAAAAAAACTCGATCTAAATGCGGCCG CGGCATAGTTGTTTCTGAACGACCCCGGTGGCATCCTGGGACCCCTCCAAGGCTTCCTG GCCTGAAATTGCCATCCATGCCACCAACCTGTCTATAAAATAGTGCATATTGA
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_173705
<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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<u><a href="#">NM_173705.1</a></u> , <u><a href="#">NP_776053.1</a></u>
<b>RefSeq Size:</b>	709 bp
<b>RefSeq ORF:</b>	684 bp
<b>Locus ID:</b>	4513
<b>Protein Families:</b>	Transmembrane
<b>Protein Pathways:</b>	Alzheimer's disease, Cardiac muscle contraction, Huntington's disease, Metabolic pathways, Oxidative phosphorylation, Parkinson's disease

**Gene Summary:**

Cytochrome c oxidase is the component of the respiratory chain that catalyzes the reduction of oxygen to water. Subunits 1-3 form the functional core of the enzyme complex. Subunit 2 transfers the electrons from cytochrome c via its binuclear copper A center to the bimetallic center of the catalytic subunit 1. [UniProtKB/Swiss-Prot Function]