

## Product datasheet for SC313253

### COX15 (NM\_004376) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	COX15 (NM_004376) Human Untagged Clone
Tag:	Tag Free
Symbol:	COX15
Synonyms:	CEMCOX2; MC4DN6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC313253 representing NM_004376. Blue=Insert sequence Red=Cloning site Green=Tag(s)

GCTCGTTTGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGCTGCTG  
 GATCCGGTACCGAGGAGATCTGCCGCC**CGATCGCC**  
 ATGCAGCGATTGCTCTTTCCGCCGTTGAGGGCCTTGAAGGGGAGGCAGTATCTGCCGCTCCTGGCTCCT  
 AGGGCAGCGCCTAGAGCACAGTGTGATTGCATCAGGCGCCCTTTGAGGCCAGGGCAATACAGCACCATC  
 TCTGAAGTAGCTTTGCAATCTGGAAGGGGTACAGTGTCCCTTCCCTCAAAGGCTGCTGAGCGGGTGGTG  
 GGCCGATGGCTCCTGGTCTGCAGTGGAACAGTGGCTGGAGCAGTTATTCTTGGTGGAGTAAGTAGGTTG  
 ACAGAGTCTGGCCTCTCGATGGTAGATTGGCATTAAATAAAGGAGATGAAGCCACCTACAAGCCAAGAG  
 GAATGGGAAGCAGAATTCAAAGATACCAGCAATTTCCAGAATTTAAATCTTGAATCATGATATGACA  
 CTGACAGAATTCAAGTTCATCTGGTACATGGAGTACTCACACCGAATGTGGGGTCGCCTTGAGGCCTT  
 GTGTACATCCTGCCTGCTGCCTACTTTTGAGAAAGGGCTGGCTCAGCCGTGGCATGAAAGGACGTGTT  
 CTTGCCCTCTGTGGCCTCGTCTGCTTCCAGGGTCTGTTGGGATGGTATATGGTGAAGTGGACTAGAA  
 GAAAAATCAGACTCCCATGACATCCCTCGGGTCAGTCAGTACCGCCTTGCTGCCACCTGGGATCAGCC  
 CTGTTCTTTATTGTGCCAGCTTGTGGACCTCACTGTCACTGCTACTCCCTCCGCACAAGTTGCCTGAA  
 ACCCACTACCTACAGTTGAGACGATTTGCTCATGGAACAGCAGGTCTGGTGTTCCTTACGGCCCTC  
 TCAGGGGCTTTTGTGGCAGGGCTAGATGCTGGGCTTGTATAACTCCTTTCCAAAATGGGAGAATCC  
 TGGATCCCGGAGGACCTTTACCTTCTCCCCATCCTGAGGAATGTTTTGAGAATCCCACTATGGTG  
 CAGTTTGATCACCAGGATTCTGGGAATCACTTCAGTCACTGCCATTACAGTGCTCTACTTCTCTCGG  
 AGAATTCCTTCTAGAAAGGACCAAGATGGCAGCAGTCACTCTGCTGGCTTTGGCGTATACACAGGGC  
 CCTGTCTTATTCACTTTACTTTTAAATCAGTGATTTGGATGAAGGCATCAGAAACATCTGA  
**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGAT  
 TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC

Restriction Sites: SgfI-MluI


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<b>ACCN:</b>	NM_004376
<b>Insert Size:</b>	1167 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>OTI Annotation:</b>	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
<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_004376.6</a></u>
<b>RefSeq Size:</b>	4337 bp
<b>RefSeq ORF:</b>	1167 bp
<b>Locus ID:</b>	1355
<b>UniProt ID:</b>	<u><a href="#">Q7KZN9</a></u>
<b>Cytogenetics:</b>	10q24.2
<b>Domains:</b>	COX15-CtaA
<b>Protein Families:</b>	Transmembrane
<b>Protein Pathways:</b>	Metabolic pathways, Oxidative phosphorylation, Porphyrin and chlorophyll metabolism
<b>MW:</b>	43.8 kDa

**Gene Summary:**

Cytochrome c oxidase (COX), 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 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 function in the regulation and assembly of the complex. This nuclear gene encodes a protein which is not a structural subunit, but may be essential for the biogenesis of COX formation and may function in the hydroxylation of heme O, according to the yeast mutant studies. This protein is predicted to contain 5 transmembrane domains localized in the mitochondrial inner membrane. Alternative splicing of this gene generates two transcript variants diverging in the 3' region. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (2) lacks an internal segment in the 3' region, as compared to variant 1. The encoded isoform 2 has a shorter and distinct C-terminus, as compared to isoform 1. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.