

Product datasheet for **SC117421**

COX11 (NM_004375) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	COX11 (NM_004375) Human Untagged Clone
Tag:	Tag Free
Symbol:	COX11
Synonyms:	COX11P
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_004375, the custom clone sequence may differ by one or more nucleotides

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ATGGGAGGGCTCTGGCGTCTGGATGGAGGTGCGTTCCTTTCTGTGGCTGGCGCTGGATCCACCCTGGGT  
CTCCAACCAGGGCTGCAGAGAGGGTAGAGCCGTTTCTTAGGCCAGAGTGGAGTGGGACAGGAGGTGCCGA  
GAGAGGACTGAGGTGGCTTGGGACATGGAAGCGCTGCAGCCTTCGAGCCCGGCATCCAGCATTGCAGCCG  
CCGCGCGGCCTAAGAGCTCGAACCTTTACACGCGCGCAGGAGGAGGAGCGGCGCGGCAGAACAAGA  
CGACCCTCACTTACGTGGCCGCTGTCGCCGTGGGCATGCTGGGGCGTCTACGCTGCCGTACCCCTTTA  
TCGGCTCTATTGCCAGACTACTGGACTTGGAGGATCAGCAGTTGCAGGTCATGCCTCAGACAAGATTGAA  
AACATGGTGCCTGTTAAAGATCGAATCATTAAAATTAGCTTTAATGCAGATGTGCATGCAAGTCTCCAGT  
GGAACCTTAGACCTCAGCAAACAGAAATATATGGTGCCAGGAGAGACTGCACTGGCGTTTTACAGAGC  
TAAGAATCCTACTGACAAACCAGTAATTGGAATTTCTACATACAATATTGTTCCATTTGAAGCTGGACAG  
TATTTCAATAAAATACAGTGCTTCTGTTTTGAAGAAACAAGGCTTAATCCCAAGAGGAAGTAGATATGC  
CAGTGTGTTTTCTACATTGATCCTGAATTTGCTGAAGATCCAAGAATGATTAAGTTGATCTTATCACTCT  
TTCTTACACTTTTTTTGAAGCAAAGGAAGGCACAAGTTGCCAGTTCAGGATATAATTGA
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5' Read Nucleotide Sequence:	>OriGene 5' read for NM_004375 unedited NNGTCGAATTTGTATACGACTCCTATAGGCGGCNCGCGATCGGCACGAGGGTTAGTTCAG AGGGTTATGGGAGGGCTCTGGCGTCTGGATGGAGGTGCGTTCCTTTCTGTGGCTGGCGC TGGATCCACCCTGGGTCTCCAACCAGGGCTGCAGAGAGGGTAGAGCCGTTTCTTAGGCCA GAGTGGAGTGGGACAGGAGGTGCCGAGAGAGGACTGAGGTGGCTTGGGACATGGAAGCGC TGCAGCCTTCGAGCCCGCATCCAGCATTGCAGCCGCCGCGCGCCTAAGAGCTCGAAC CCTTTACACGCGCGCAGGAGGAGGAGCGCGCGCAGAACAAGACACCCTCACTTAC GTGGCCGCTGTCGCCGTGGGCATGCTGGGGCGTCTACGCTGCCGTACCCTTTATCGG CTCTATTGCCAGACTACTGGACTTGGAGGATCAGCAGTTGCAGGTCATGCCTCAGACAAG ATTGAAAACATGGTGCCTGTTAAAGATCGAATCATTAAAATTAGCTTTAATGCAGATGTG CATGCAAGTCTCCAGTGGAACTTTAGACCTCAGCAAACAGAAATATATGTGGTCCAGGA GAGACTGCACTGGCGTTTTACAGAGCTAAGAATCCTACTGACAAACAGTAATTGGAATT TCTACATACAATATTGTTCCATTTGAAGCTGGACAGTATTTCAATAAAATACAGGTACAT CAAAGTGTAACTTTACAGAATATGANTAAGATACATGANACGGTTTAGTATGANACTTA AGTGTTTTAGTAGAATCTTGTGATTTCTGAAAACGAAATCTTTCTAACATCAGCTATTN TTCTTACTATCTATACCTGCTATGCAGAGATGGGAACCANACCAATGGATATCTGCTTT TAAGATAGAATTTA
Restriction Sites:	NotI-NotI
ACCN:	NM_004375
Insert Size:	3390 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:	<ol style="list-style-type: none">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_004375.2 , NP_004366.1
RefSeq Size:	2717 bp
RefSeq ORF:	831 bp
Locus ID:	1353
UniProt ID:	Q9Y6N1
Cytogenetics:	17q22
Domains:	CtaG_Cox11
Protein Families:	Transmembrane

Protein Pathways:

Metabolic pathways, Oxidative phosphorylation

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 a heme A biosynthetic enzyme involved in COX formation, according to the yeast mutant studies. However, the studies in *Rhodobacter sphaeroides* suggest that this gene is not required for heme A biosynthesis, but required for stable formation of the Cu(B) and magnesium centers of COX. This human protein is predicted to contain a transmembrane domain localized in the mitochondrial inner membrane. Multiple transcript variants encoding different isoforms have been found for this gene. A related pseudogene has been found on chromosome 6. [provided by RefSeq, Jun 2009]

Transcript Variant: This variant (1) encodes the longest 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.