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Product datasheet for SC119292

COX10 (NM_001303) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	COX10 (NM_001303) Human Untagged Clone
Tag:	Tag Free
Symbol:	COX10
Synonyms:	MC4DN3
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_001303, the custom clone sequence may differ by one or more nucleotides

ATGGCCGCATCTCCGCACACTCTCTCCTCACGCCTCCTGACAGGTTGCGTAGGAGGCTCTGTCTGGTATC
TTGAAAGAAGAACTATACAGGACTCCCCTCACAAGTTCTTACATCTTCTCAGGAATGTCAATAAGCAGTG
GATTACATTTCAGCACTTTAGCTTCCTCAAACGCATGTATGTCACACAGCTGAACAGAAGCCACAACCAG
CAAGTAAGACCCAAGCCAGAACCAGTAGCATCTCCTTTCCTTGAAAAAACATCTTCAGGTCAAGCCAAAG
CAGAAATATATGAGATGAGACCTCTCTCACCGCCCAGCCTATCTTTGTCCAGAAAGCCAAATGAAAAGGA
ATTGATAGAACTAGAGCCAGACTCAGTAATTGAAGACTCAATAGATGTAGGGAAAGAGACAAAAGAGGAA
AAGCGGTGGAAAGAGATGAAGCTGCAAGTGTATGATTTGCCAGGAATTTTGGCTCGACTATCCAAAATCA
AACTCACAGCTCTGGTTGTAAGTACCACTGCAGCTGGATTTGCATTGGCTCCGGGCCCTTTTGACTGGCC
CTGTTTCCTGCTTACTTCTGTTGGGACAGGCCTTGCATCCTGTGCTGCCAACTCCATCAATCAGTTTTTT
GAGGTGCCATTTGACTCAAACATGAATAGGACAAAGAACAGACCGCTGGTTCGTGGACAGATCAGCCCAT
TGCTAGCTGTGTCCTTTGCCACTTGTTGTGCTGTTCCGGGAGTTGCCATTCTGACCTTGGGGGTGAATCC
ACTCACAGGAGCCCTGGGGCTCTTCAACATTTTCCTGTATACCTGCTGCTACACACCACTGAAAAGGATC
AGCATTGCCAACACATGGGTCGGAGCTGTGGTTGGGGCCATCCCGCCTGTCATGGGCTGGACAGCGGCCA
CGGGCAGCCTCGATGCTGGCGCATTTCTCCTGGGAGGAATCCTCTACTCCTGGCAGTTTCCTCATTTCAA
CGCCCTGAGCTGGGGCCTCCGTGAAGACTACTCCCGGGGCGGCTACTGCATGATGTCGGTCACCCACCCG
GGCCTGTGCCGGCGCGTGGCGCTGCGCCACTGCCTGGCCCTGCTCGTGCTGTCCGCAGCAGCCCCTGTGC
TGGACATCACCACATGGACCTTCCCCATCATGGCCCTTCCCATCAATGCGTACATCTCCTACCTCGGCTT
CCGCTTCTACGTGGACGCAGACCGCAGGAGCTCGCGGAGACTGTTCTTCTGCAGCCTGTGGCACCTGCCG
CTGCTGCTGCTGCTCATGCTCACCTGCAAGCGGCCGAGCGGAGGCGGGGACGCAGGGCCCCCTCCCAGCT
GA

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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_001303 unedited
TCGATTTGATACATTATTAGGCGGCCGCGATTCGCACGAGCCCGTGAGAGAGAGACACAG
GATCCCGGGGAGCGGCCCCAGACTCGTAAATTATGGCCGCATCTCCGCACACTCTCTCCT
CACGCCTCCTGACAGGTTGCGTAAGAGGCTCTGTCTGGTATCTTGAAAGAAGAACTATAC
AGGACTCCCCTCACAAGTTCTTACATCTTCTCAGGAATGTCAATAAGCAGTGGATTACAT
TTCAGCACTTTAGCTTCCTCAAACGCATGTATGTCACACAGCTGAACAGAAGCCACAACC
AGCAAGTAAGACCCAAGCCAGAACCAGTAGCATCTCCTTTCCTTGAAAAAACATCTTCAG
GTCAAGCCAAAGCAGAAATATATGAGATGAGACCTCTCTCACCGCCCAGCCTATCTTTGT
CCAGAAAGCCAAATGAAAAGGAATTGATAGAACTAGAGCCAGACTCAGTAATTGAAGACT
CAATAGATGTAGGGAAAGAGACAAAAGATGAAAAGCGGTGGAAAGAGATGAAGCTGCAAG
TGTATGATTTGCCAGGAATTTTGGCTCGACTATCCAAAATCAAACTCACAGCTCTAGTTG
TAAGTACCACTGCAGCTGGATTTGCATTGGCTCCGGGCCCTTTTGACTGGCCCTGTTTCC
TGCTTACTTCTGTTGGGACAGGCCTTGCATCCTGTGCTGCCAACTCCATCAATCAGTTNT
TTAGAGTGCCATTTGACTCANACATGAATAGGACANAGAACAGACCGCTGGTTCGTGGAC
AGATCAGCCCGTTGCTAGCTGTGTCCTTTGCCACCTAGTGTGCTGNTCCGGGAGTTGCCA
TTCTGACCNTGGAGGTGAATCCACTCACAGGAGCCCTGGGGCTNNCTCACATTTTCTGGT
TACCTGCTGCTACCACCACTGAAAAGATCAGCATTGCCACCCATGGTCG

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_001303 unedited
TTACCGCGGCCGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTGTATACCATTTTATT
GTGGAAGGAAAAGAGAATCAATGAATTGTACAAATGTGAAGGCTGTAACAAGTTGTAGAG
GCTTTTTCCAGACATTCCTATGCAATGTTCTCCACAGTAAATACCTGGGGGCAGCCAAGA
GGGAAGATTTCAGATAAGTGCAAACAGTGATTGGATGTTATCTACCTACAATCCCTTTAG
ACATTTTTGAGAGAACTCTGTTTAAATGTTGTTTAACTCTCCCACCCCGACCAATGAATC
CCTACGGACCAGCAGTGCCCTGGGAGACTGAGTAATGAAAACATCCTGTCAAGCTTCAAG
ACCTTTGGGCAGATGGGACTCTGCAGACCCGTGGGAGCACAAAGGACTAAAAAGCTGCAG
GTAACCGTGTTTGGTAACCGAGACCACACCTGGCCACAGGATAACTTGCAAAATTCCCAG
AACCCTGCTTCTGGCTCTTAAAGCCATTGCACATGTGGAGGCTAATTTCTGAATTCAGGA
GATATCAGGATGGACATGTATTTTTCACCCAAGGGACAGGAATGTGAGCTCTGTGGGCTG
GTTAGCCCAGCACACCCTTCTTCCTAACTTCCCTTCTCATACAGCCTTGAAAAGCCGTGC
TGTGTAGCAGGAGTGGCGACCCACAGTAGTGACTCCAGAGGTACAGTAATGGGGGTGGGG
GCCAGAGGTATCCCGGCTGGTATTNAGGTCCAGGGCCTACCCTTTTAGAAAGAACTGGCT
TCCACAGTGTCTATATGTTAACGTGAACTATNAAGATGGCTGTGACTTCCTTGGNATTTC
TGAAATGCTCATACGCAATGTGGGTGAAAGGGAGGACAGGGCCCTGCCAATCCAACCTGG
AGACT

Restriction Sites: NotI-NotI

ACCN: NM_001303

Insert Size: 2800 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_001303.2, NP_001294.2
RefSeq Size:	3031 bp
RefSeq ORF:	1332 bp
Locus ID:	1352
UniProt ID:	Q12887
Cytogenetics:	17p12
Domains:	UbiA
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Metabolic pathways, Oxidative phosphorylation, Porphyrin and chlorophyll metabolism
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 heme A:farnesyltransferase, which is not a structural subunit but required for the expression of functional COX and functions in the maturation of the heme A prosthetic group of COX. This protein is predicted to contain 7-9 transmembrane domains localized in the mitochondrial inner membrane. A gene mutation, which results in the substitution of a lysine for an asparagine (N204K), is identified to be responsible for cytochrome c oxidase deficiency. In addition, this gene is disrupted in patients with CMT1A (Charcot-Marie-Tooth type 1A) duplication and with HNPP (hereditary neuropathy with liability to pressure palsies) deletion. [provided by RefSeq, Jul 2008]