

Product datasheet for RC202697

COX7A2L (NM_004718) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: COX7A2L (NM_004718) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: COX7A2L
Synonyms: COX7AR; COX7RP; EB1; SCAF1; SCAFI; SIG81
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC202697 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTA**CTACAAGTTT**AGTGGCTT**CACGCAGAAGTT**GGCAGGAGCATGGGCTTCGGAGGCCTATAGCCCGC
AGGGATTA**AAAGCCTGTGGTTT**CCACAGAAGCACCACTATCATATTTGCCACCACTAAACTGACCTC
CGATTCACAGTGTATGATTATGCTGGGAAAA**CAAAGTTCC**AGAGCTACAAAAGTTTTTCCAGAAAGCT
GATGGTGTGCCCGTCTACCTGAAACGAGGCCTGCCTGACCAAATGCTTTACCGGACCACCATGGCGCTGA
CTGTGGGAGGGACCATCTACTGCCTGATCGCCCTCTACATGGCTTCGCAGCCCAAAAACAAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC202697 protein sequence
Red=Cloning site Green=Tags(s)
MYYKFSGFTQKLAGAWASEAYSPQGLKPVVSTEAPPIIFATPTKLTSDSTVYDYAGKNKVPQLKFFQKA
DGPVYLYKRGLPDQMLYRTTALTVGGTIYCLIALYMASQPKNK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6578_d08.zip

Restriction Sites: SgfI-MluI



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Cloning Scheme:


ACCN: NM_004718

ORF Size: 342 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

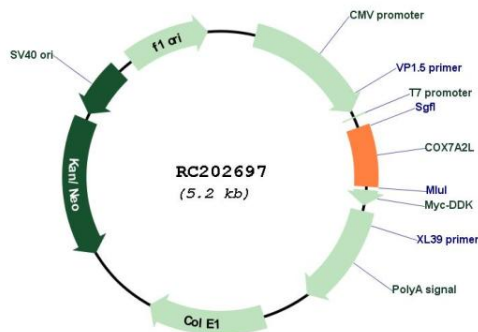
RefSeq: [NM_004718.4](#)

RefSeq Size: 1145 bp

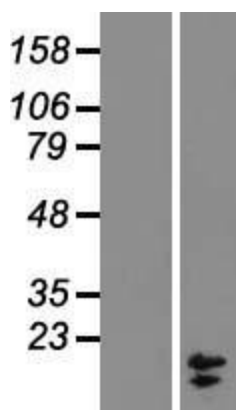
RefSeq ORF: 345 bp

Locus ID:	9167
UniProt ID:	O14548
Cytogenetics:	2p21
Domains:	COX7a
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Alzheimer's disease, Cardiac muscle contraction, Huntington's disease, Oxidative phosphorylation, Parkinson's disease
MW:	12.6 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 similar to polypeptides 1 and 2 of subunit VIIa in the C-terminal region, and also highly similar to the mouse Sig81 protein sequence. This gene is expressed in all tissues, and upregulated in a breast cancer cell line after estrogen treatment. It is possible that this gene represents a regulatory subunit of COX and mediates the higher level of energy production in target cells by estrogen. Several transcript variants, some protein-coding and others non-protein coding, have been found for this gene. [provided by RefSeq, Jan 2016]

Product images:



Circular map for RC202697



Western blot validation of overexpression lysate (Cat# [LY417801]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202697 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).