

Product datasheet for **RC206046**

COX5A (NM_004255) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: COX5A (NM_004255) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: COX5A
Synonyms: COX; COX-VA; MC4DN20; VA
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC206046 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCTGGGCGCCGCTCTCCGCCGCTGCGCTGTGGCCGCAACCACCCGGGCCGACCCTCGAGGCCTCCTGC
ACTCCGCCCGACCCCGCCCGCCGCTGGCTATCCAGTCAGTTCGCTGCTATCCCATGGGTACAGGA
GACAGATGAGGAGTTTGTGCTCGCTGGGTAACATACTCAACAAGCCAGATATAGATGCCTGGGAATTG
CGTAAAGGGATAAACACACTTGTACCTATGATATGGTCCAGAGCCAAAATCATTGATGCTGCTTTGC
GGGCATGCAGACGGTTAAATGATTTTGCTAGTACAGTTCGTATCCTAGAGGTTGTTAAGGACAAAGCAGG
ACCTCATAAGGAAATCTACCCCTATGTCATCCAGGAACCTAGACCAACTTAAATGAACTGGGAATCTCC
ACTCCGGAGGAAGTGGGCCTTGACAAAGTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC206046 protein sequence
Red=Cloning site Green=Tags(s)

MLGAALRRCAVAATTRADPRGLLHSARTPGPAVAIQSVRCYSHGSQETDEEFDARWVYFNKPDIDAWEL
RKGINTLVTYDMVPEPKIIDAALRACRRLNDFASTVRILEVVKDKAGPHKEIYPYVIQELRPTLNELGIS
TPEELGLDKV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6317_g11.zip



[View online >](#)

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_004255

ORF Size: 450 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.

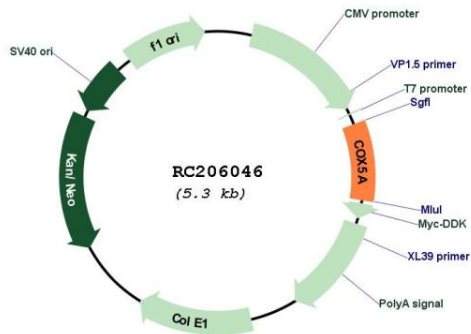
RefSeq: [NM_004255.4](#)

RefSeq Size: 784 bp

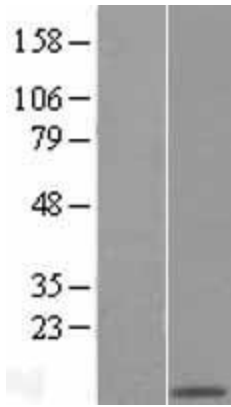
RefSeq ORF: 453 bp

Locus ID: 9377
UniProt ID: [P20674](#)
Cytogenetics: 15q24.2
Domains: COX5A
Protein Pathways: Alzheimer's disease, Cardiac muscle contraction, Huntington's disease, Metabolic pathways, Oxidative phosphorylation, Parkinson's disease
MW: 16.8 kDa
Gene Summary: Cytochrome c oxidase (COX) is the terminal enzyme of the mitochondrial respiratory chain. It is a multi-subunit enzyme complex that couples the transfer of electrons from cytochrome c to molecular oxygen and contributes to a proton electrochemical gradient across the inner mitochondrial membrane. The complex consists of 13 mitochondrial- and nuclear-encoded subunits. The mitochondrially-encoded subunits perform the electron transfer of proton pumping activities. The functions of the nuclear-encoded subunits are unknown but they may play a role in the regulation and assembly of the complex. This gene encodes the nuclear-encoded subunit Va of the human mitochondrial respiratory chain enzyme. A pseudogene COX5AP1 has been found in chromosome 14q22. [provided by RefSeq, Jul 2008]

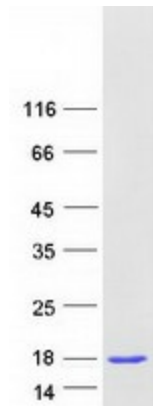
Product images:



Circular map for RC206046



Western blot validation of overexpression lysate (Cat# [LY418109]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206046 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified COX5A protein (Cat# [TP306046]). The protein was produced from HEK293T cells transfected with COX5A cDNA clone (Cat# RC206046) using MegaTran 2.0 (Cat# [TT210002]).