Product datasheet for RC209374L2

COX4 (COX4I1) (NM_001861) Human Tagged Lenti ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	COX4 (COX4I1) (NM_001861) Human Tagged Lenti ORF Clone
Tag:	mGFP
Symbol:	COX4
Synonyms:	COX4; COX4-1; COXIV; COX IV-1; COXIV-1; MC4DN16
Mammalian Cell Selection:	None
Vector:	pLenti-C-mGFP (PS100071)
E. coli Selection:	Chloramphenicol (34 ug/mL)
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(RC209374).
Restriction Sites:	SgfI-MluI
Cloning Scheme:	

Cloning sites used for ORF Shuttling:

Sgf I   ORF   Mlu I
--- GCG ATC GC C ATG ---//--- NNŇ ACG CGT ---

EcoR I   BamH I   RBS   Kozak Consensus / Sgf I   ORF
CTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGC C ATG --- --- ---

Mlu I   Not I   Xho I   mGFP Tag
--- --- --- --- --- --- NNŇ ACG CGT ACG CGG CCG CTC GAG ATG AGC GGG GGC --- --- --- ---
                       T   R   T   R   P   L   E   M   S   G   G   - - - -

Pme I
--- --- GGA CTC AGA TAA GTT TAA ACGGCCGGCCGCGG
  - -   G   L   R   Stop

* The last codon before the Stop codon of the ORF.

ACCN:	NM_001861
ORF Size:	507 bp

View online »

|	
OTI Disclaimer:	Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.
	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.
RefSeq:	NM_001861.2
RefSeq Size:	839 bp
RefSeq ORF:	510 bp
Locus ID:	1327
UniProt ID:	P13073
Cytogenetics:	16q24.1
Domains:	COX4
Protein Families:	Transmembrane
Protein Pathways:	Alzheimer's disease, Cardiac muscle contraction, Huntington's disease, Metabolic pathways, Oxidative phosphorylation, Parkinson's disease
MW:	19.6 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 and 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 IV isoform 1 of the human mitochondrial respiratory chain enzyme. It is located at the 3' of the NOC4 (neighbor of COX4) gene in a head-to-head orientation, and shares a promoter with it. Pseudogenes related to this gene are located on chromosomes 13 and 14. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jan 2016]

Product images:
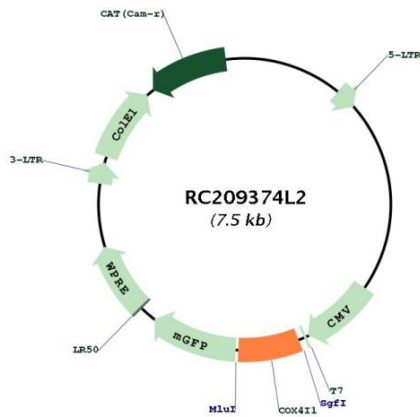
Circular map for RC209374L2
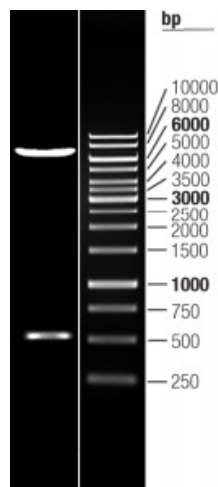
Double digestion of RC209374L2 using SgfI and MluI