

## Product datasheet for **RC211837**

### SCO2 (NM\_005138) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SCO2 (NM_005138) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SCO2
Synonyms:	CEMCOX1; ECGF1; Gliostatin; MC4DN2; MYP6; PD-ECGF; SCO1L; TdRPase; TP; TYMP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC211837 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGCATCGCC**

ATGCTGCTGCTGACTCGGAGCCCCACAGCTTGGCACAGGCTCTCTCAGCTCAAGCCTCGGGTCTCCCTG  
GGACCCTGGGAGGCCAGGCCCTGCATCTGAGGTCCTGGCTTTTGTCAAGGCAGGGCCCTGCAGAGACAGG  
TGGGCAGGGCCAGCCCCAGGGCCCTGGGCTTGAACCCGGCTGCTGATCACAGGCCTGTTCCGGGGTGA  
CTCGGTGGGGCTGGCTGGCCCTGAGGGCTGAGAAGGAGAGGCTGCAGCAGCAAAAGCGAACAGAAGCCC  
TGCGCCAGGCAGCTGTGGCCAGGGCGACTTCCACCTGCTGGATCACAGAGGCCGGGCTCGCTGCAAGGC  
TGACTTCCGGGGCCAGTGGGTGCTGATGTACTTTGGCTTCACTCACTGCCCTGACATCTGCCAGACGAG  
CTGGAGAAGCTGGTGCAGGTGGTGCAGGAGCTGGAAGCAGAGCCTGGTTTGCCTCCAGTGCAGCCTGTCT  
TCATCACTGTGGACCCCGAGCGGACGACGTTGAAGCCATGGCCCGCTACGTCCAGGACTTCCACCCAAG  
ACTGTTGGGTCTGACCGGCTCCACCAAACAGGTTGCCAGGCTAGTCACAGTTACCGCGTGTACTACAAT  
GCAGGCCCAAGGATGAGGACCAGGACTACATCGTGGACCACTCCATTGCCATCTACCTGCTCAACCCTG  
ACGGCCTTTCACGATTACTACGGCCGGAGCAGATCGGCTGAGCAGATCTCAGACAGTGTGCGGGCGCA  
CATGGCGGCTTCCCGAGTGTCTGTCT

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC211837 protein sequence  
Red=Cloning site Green=Tags(s)

MLLLTRSPATAWHRLSQLKPRVLPGLTGGQALHLRSWLLSRQGPAETGGQGPQGPGLRTRLLITGLFGAG  
 LGGAWLALRAEKERLQQQRTEALRQAAVGGQDFHLLDHRGRARCKADFRGQWVLMYFGFTHCPDICPDE  
 LEKLVQVVRQLEAEPGLPPVQPVFITVDPERDDVEAMARYVQDFHPRLLGLTGSTKQVAQASHSYRVYYN  
 AGPKDEDQDYIVDHSIAIYLLNPDGLFTDYYGRSRSAEQISDSVRRRHMAAFRSVLS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6447\\_a11.zip](https://cdn.origene.com/chromatograms/mk6447_a11.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



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

**ACCN:** NM\_005138

**ORF Size:** 798 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.

**RefSeq:** [NM\\_005138.3](#)

**RefSeq Size:** 1005 bp

**RefSeq ORF:** 801 bp

**Locus ID:** 9997

**UniProt ID:** [O43819](#)

**Cytogenetics:** 22q13.33

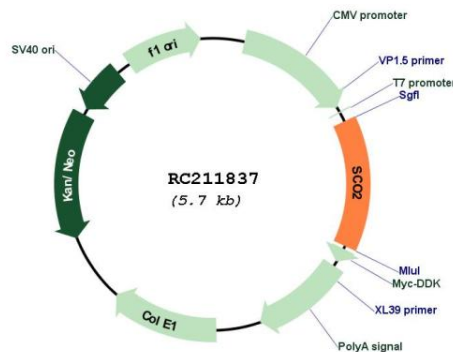
**Domains:** SCO1-SenC

**Protein Families:** Druggable Genome

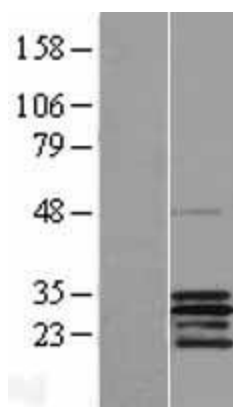
**MW:** 29.8 kDa

**Gene Summary:** Cytochrome c oxidase (COX) catalyzes the transfer of electrons from cytochrome c to molecular oxygen, which helps to maintain the proton gradient across the inner mitochondrial membrane that is necessary for aerobic ATP production. Human COX is a multimeric protein complex that requires several assembly factors; this gene encodes one of the COX assembly factors. The encoded protein is a metallochaperone that is involved in the biogenesis of cytochrome c oxidase subunit II. Mutations in this gene are associated with fatal infantile encephalomyopathy and myopia 6. [provided by RefSeq, Oct 2014]

### Product images:



Circular map for RC211837



Western blot validation of overexpression lysate (Cat# [LY417499]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC211837 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).