

Product datasheet for **RG211837**

SCO2 (NM_005138) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SCO2 (NM_005138) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SCO2
Synonyms:	CEMCOX1; ECGF1; Gliostatin; MC4DN2; MYP6; PD-ECGF; SCO1L; TdRPase; TP; TYMP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG211837 representing NM_005138 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCTGCTGCTGACTCGGAGCCCCACAGCTTGGCACAGGCTCTCTCAGCTCAAGCCTCGGGTCTCCCTG
GGACCCTGGGAGGCCAGGCCCTGCATCTGAGGTCTGGCTTTTGTCAAGGCAGGGCCCTGCAGAGACAGG
TGGGCAGGGCCAGCCCCAGGGCCCTGGGCTTGAACCCGGCTGCTGATCACAGGCCTGTTCCGGGGTGA
CTCGGTGGGGCTGGCTGGCCCTGAGGGCTGAGAAGGAGAGGCTGCAGCAGCAAAAGCGAACAGAAGCCC
TGCGCCAGGCAGCTGTGGCCAGGGCGACTTCCACCTGCTGGATCACAGAGGCCGGGCTCGCTGCAAGGC
TGACTTCCGGGGCCAGTGGGTGCTGATGTACTTTGGCTTCACTCACTGCCCTGACATCTGCCAGACGAG
CTGGAGAAGCTGGTGCAGGTGGTGCAGGAGCTGGAAGCAGAGCCTGGTTTGCCTCCAGTGCAGCCTGTCT
TCATCACTGTGGACCCCGAGCGGGACGACGTTGAAGCCATGGCCCGCTACGTCCAGGACTTCCACCCAAG
ACTGTTGGGTCTGACCGGCTCCACCAAACAGGTTGCCAGGCTAGTCACAGTTACCGCGTACTACAAT
GCAGGCCCAAGGATGAGGACCAGGACTACATCGTGGACCACTCCATTGCCATCTACCTGCTCAACCCTG
ACGGCCTTTCACGATTACTACGGCCGAGCAGATCGGCTGAGCAGATCTCAGACAGTGTGCGCGGGCA
CATGGCGGCTTCCCGAGTGTCTGTCT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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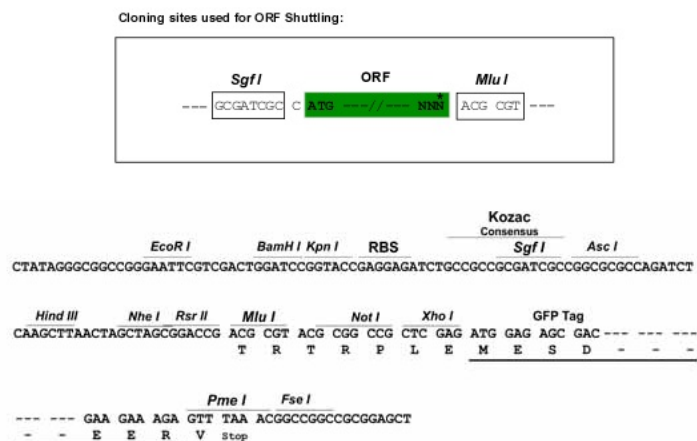
Protein Sequence: >RG211837 representing NM_005138
 Red=Cloning site Green=Tags(s)

MLLLTRSPATAWHRLSQLKPRVLPGLTGGQALHLRSWLLSRQGPAETGGQGPQGPGLRTRLLITGLFGAG
 LGGAWLALRAEKERLQQQKRTEALRQAAVGGQDFHLLDHRGRARCKADFRGQWVLMYFGFTHCPDICPDE
 LEKLVQVVRQLEAEPGLPPVQPVFITVDPERDDVEAMARYVQDFHPRLLGLTGSTKQVAQASHSYRVYYN
 AGPKDEDQDYIVDHSIAIYLLNPDGLFTDYYGRSRSAEQISDSVRRRHMAAFRSVLS

TRTRPLE – GFP Tag – V

Restriction Sites: SgfI-MluI

Cloning Scheme:



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: 931 bp

RefSeq ORF: 801 bp

Locus ID: 9997

UniProt ID: [O43819](#)

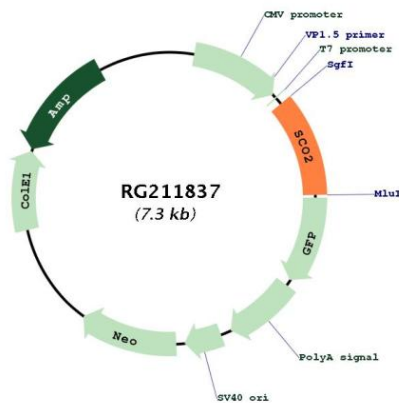
Cytogenetics: 22q13.33

Domains: SCO1-SenC

Protein Families: Druggable Genome

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 RG211837