

## Product datasheet for **RG203890**

### CCDC51 (NM\_024661) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CCDC51 (NM_024661) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CCDC51
Synonyms:	MITOK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG203890 representing NM_024661 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGACCAGGACTCTCTGCAGCCAGGCCAAGCCAGCCCGGAGAGAAAAGACCTGAGGAGGTGGCCCTGG  
GGCTGCACCACCGCCTCCAGCACTGGGAAGAGCCCTGGGGCACAGCATTAGCAACGAGCGACCTCCAC  
AGCCAAGACTTGGTGGGACAGATATGAAGATTTGTTGGACTCAACGAGGTTGAGAGGCCAGGGAAAG  
GTGACAGAGGCTGAGAAAGTGTTCATGGTGGCTCGAGGGCTTGTCCGAGAGGCTCGGGAGGACTTGAAG  
TTCACCAGGCCAAGCTGAAGGAGGTGAGGGACCGCTTGACCGTGTCTCCAGGGAGGACAGTCAGTACTT  
GGAAGTGGCTACTCTCGAGCACAGGATGCTGCAGGAGGAGAAGAGGCTTGCACAGCCTATCTGCCTGCA  
GAAGACTCTGAGCGAGAGAAATTCCTCCTTCTCTGCAGCTGTGCGGGAAAGTCATGAGAAGGAGCGCA  
CAAGGGCTGAGAGGACCAAGAAGTGGTCCCTCATTGGCTCAGTCTCGGGGCCCTGATTGGTGTGGCTGG  
CTCCACCTATGTGAACCGTGTGCGACTACAGGAGCTGAAGGCTTACTCCTGGAGGCGCAGAAGGGCCCT  
GTGAGTCTCCAAGAGGCCATTGAGAACAGGCGTCTAGCTACTCCCGCCAGCAGAGGGACCTCCACAATC  
TCATGGTGGACTTGAAGGGCCTGGTACATGCTGCTGGGCCAGGGCAGGACTCTGGGTCACAGGCAGGTAG  
TCCCCGACCAGAGACAGAGATGTAGATGTCCTTTCAGCTGCCTTGAAGAGCAGCTTAGTCATTCAGG  
CAAGTCCATTGCTCTAGAAGGCTTACGAGAGCAGCTTGTATGGCCTAGAAAAGACTTGTAGCCAAATGG  
CTGGGGTGGTTCAGCTTGTAAAGTCTGACGACACCCAGGCTTGGTGAACCAGCAGACGGGGCTATGCC  
CAGCTTCTTGTGAGCAGGGGAGCATGATCTTGGCACTGTGACACCGAGCAGAGACTAGAAGCCCAA  
GTCAACAGGAACACCATCTATAGCACCTGGTACCTGTGTGACATTTGTGGCCCACTGCCTGTGCTCT  
ACATGCTATTCAAAGCCAGC

**ACGGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA



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**Protein Sequence:** >RG203890 representing NM\_024661  
 Red=Cloning site Green=Tags(s)

MTRTLCSPGPSQPGEKRPEEVALGLHHRLPALGRALGHSIQQRATSTAKTWWDRYEEFVGLNEVREAQGK  
 VTEAEKVFMVARGLVREAREDLVHQAKLKEVRDRLDRVSREDSQYLELATLEHRMLQEEKRLRTAYLRA  
 EDSEREKFSLFSAAVRESHEKERTRAERTKNWSLIGSVLIGVAGSTYVNRVRLQELKALLLEAQKGP  
 VSLQEAIREQASSYSRQQRDLHNLMDLRLGLVHAAGPGQDSGSQAGSPPTRDRDQVLSAALKEQLSHSR  
 QVHSCLEGLREQLDGLEKTC SQMAGVVQLVKSAAHPGLVEPADGAMP SFLLEQGS MILALSDTEQRLEAQ  
 VNRNTIYSTLVTCVTFVATLPVLVYMLFKAS

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_024661

**ORF Size:** 1140 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\\_024661.2](#)

**RefSeq Size:** 1506 bp

**RefSeq ORF:** 1236 bp

**Locus ID:** 79714

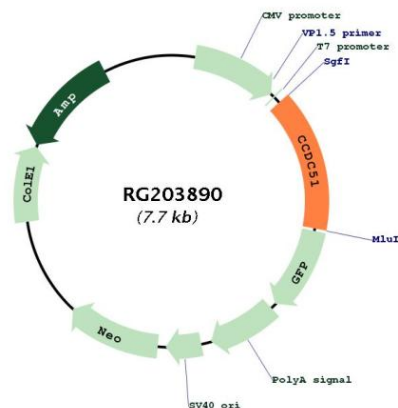
**UniProt ID:** [Q96ER9](#)

**Cytogenetics:** 3p21.31

**Protein Families:** Transmembrane

**Gene Summary:** Mitochondrial potassium channel located in the mitochondrial inner membrane (PubMed:31435016). Together with ABCB8/MITOSUR, forms a protein complex localized in the mitochondria that mediates ATP-dependent potassium currents across the inner membrane (that is, mitoK(ATP) channel) (PubMed:31435016). May contribute to the homeostatic control of cellular metabolism under stress conditions by regulating the mitochondrial matrix volume (PubMed:31435016).[UniProtKB/Swiss-Prot Function]

## Product images:



Circular map for RG203890