

## Product datasheet for **RG232426**

### CCDC51 (NM\_001256968) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** CCDC51 (NM\_001256968) 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:** >RG232426 representing NM\_001256968  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGTGGCTCGAGGGCTTGCCGAGAGGCTCGGGAGGACTTGAAGTTCACCAGGCCAAGCTGAAGGAGG  
 TGAGGGACCGCTTGACCGTGTCTCCAGGGAGGACAGTCAGTACTTGAAGTGGTACTCTCGAGCACAG  
 GATGCTGCAGGAGGAGAAGAGGCTTCGCACAGCCTATCTGCGTGCAGAAGACTCTGAGCGAGAGAAGTTC  
 TCCCTTCTCTGCAGCTGTGCGGAAAGTCATGAGAAGGAGCGCACAAAGGGCTGAGAGGACCAAGAAGT  
 GGTCCCTCATTGGCTCAGTCCTGGGGCCCTGATTGGTGTGGCTGGCTCCACCTATGTGAACCGTGTGCG  
 ACTACAGGAGCTGAAGGCTTTACTCCTGGAGGCGCAGAAGGGCCCTGTGAGTCTCCAAGAGGCCATTCGA  
 GAACAGGCGTCTAGTACTCCCGCCAGCAGAGGGACCTCCACAATCTCATGGTGGACCTGAGGGGCTGG  
 TACATGCTGCTGGGCCAGGGCAGGACTCTGGGTCACAGGCAGGTAGTCCCCGACCAGAGACAGAGATGT  
 AGATGTCTTTCAGCTGCCTTGAAAGAGCAGCTTAGTCATTCCAGGCAAGTCCATTCATGTCTAGAAGGC  
 TTACGAGAGCAGCTTGATGGCCTAGAAAAGACTTGTAGCCAAATGGCTGGGGTGGTTCAGCTTGTAAAGT  
 CTGCAGCACACCCAGGCTGGTGAACAGCAGACGGGCTATGCCAGCTTCTTGTCTGGAGCAGGGGAG  
 CATGATCTTGGCACTGTGACACCGGAGCAGAGACTAGAAGCCCAAGTCAACAGGAACACCATCTATAGC  
 ACCCTGGTCACCTGTGTGACATTTGTGGCCACTGCTGTGCTTACATGCTATTCAAAGCCAGC

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA



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**Protein Sequence:** >RG232426 representing NM\_001256968  
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MVARGLVREAREDLEVHQAKLKEVRDRLDRVSREDSQYLELATLEHRMLQEEKRLRTAYLRAEDSEREKF  
 SLFSAAVRESHEKERTRAERTKNWSLIGSVL GALIGVAGSTYVNRVRLQELKALLLEAQKGPVSLQEAIR  
 EQASSYSRQQRDLHNL MVDLRGLVHAAGPGQDSGSGQAGSPPTRDRD VDL SAALKEQLSHSRQVHSCLEG  
 LREQLDGLEKTC SQMAGVVQLVK SAAHPGLVEPADGAMPSF LLEQGS MILALSDTEQRLEAQVNRNTIYS  
 TLVTCVTFVATLPVLYMLFKAS

TRTRPLE - GFP Tag - V

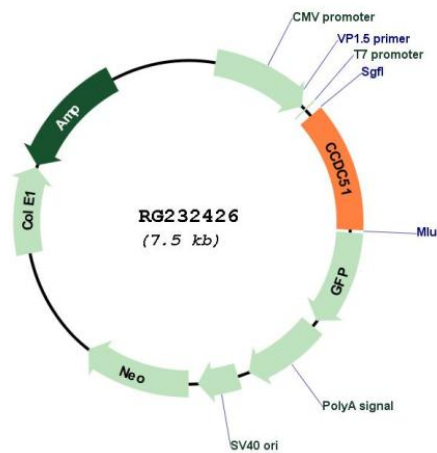
**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**Plasmid Map:**



**ACCN:** NM\_001256968

**ORF Size:** 906 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001256968.3</a>
<b>RefSeq Size:</b>	1398 bp
<b>RefSeq ORF:</b>	909 bp
<b>Locus ID:</b>	79714
<b>UniProt ID:</b>	<a href="#">Q96ER9</a>
<b>Cytogenetics:</b>	3p21.31
<b>Protein Families:</b>	Transmembrane
<b>Gene Summary:</b>	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]