

Product datasheet for **RG232677**

CCDC51 (NM_001256964) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CCDC51 (NM_001256964) 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:	>RG232677 representing NM_001256964 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGATGGGGCGCAGCCCTGGGTTTGCCATGCAGCACATCGTGGGTGTGCCCCACGTACTGGTTCGGAGGG
GCCTCCTTGAAGGGACCTCTTCATGACCAGGACTCTCTGCAGCCAGGCCAAGCCAGCCCGGAGAGAA
AAGACCTGAGGAGGTGGCCCTGGGGCTGCACCACCGCCTCCAGCACTGGGAAGAGCCCTGGGGCACAGC
ATTCAGCAACGAGCGACCTCCACAGCCAAGACTTGGTGGGACAGATGAAGAGTTTGTGGACTCAACG
AGGTTTCGAGAGGCCAGGAAAGGTGACAGAGGCTGAGAAAGTGTTCATGGTGGCTCGAGGGCTTGTCCG
AGAGGCTCGGGAGGACTTGAAGTTCACCAGGCCAAGCTGAAGGAGGTGAGGGACCGCTTGACCGTGTCT
TCCAGGGAGGACAGTCACTACTTGAAGTGGTACTCTCGAGCACAGGATGCTGCAGGAGGAGAAGAGGC
TTCGCACAGCCTATCTGCGTGCAGAAGACTCTGAGCGAGAGAAGTTCTCCCTCTTCTGCACTGTGCG
GGAAAGTCATGAGAAGGAGCGCACAAGGGCTGAGAGGACCAAGAAGTGGTCCCTCATTGGCTCAGTCCTG
GGGGCCCTGATTGGTGTGGCTGGCTCCACCTATGTGAACCGTGTGCGACTACAGGAGCTGAAGGCTTTAC
TCCTGGAGGCGCAGAAGGGCCCTGTGAGTCTCCAAGAGGCCATTCGAGAACAGGCGTCTAGCTACTCCC
CCAGCAGAGGGACCTCCACAATCTATGGTGGACTTGAAGGGCCCTGGTACATGCTGCTGGCCAGGGCAG
GACTCTGGGTACAGGCAGGTAGTCCCGACCCAGAGACAGAGATGTAGATGCTCTTTCAGCTGCCCTTGA
AAGAGCAGCTTAGTCATTCCAGGCAAGTCCATTCATGTCTAGAAGGCTTACGAGAGCAGCTTGTAGGCT
AGAAAAGACTTGTAGCCAATGGCTGGGGTGGTTCAGCTTGTAAAGTCTGCAGCACACCCAGGCCTGGTG
GAACCAGCAGACGGGCTATGCCAGCTTCTTGTGGAGCAGGGGAGCATGATCTTGGCACTGTCAGACA
CGGAGCAGAGACTAGAAGCCCAAGTCAACAGGAACACCATCTATAGCACCTGGTACCTGTGTGACATT
TGTGGCCACACTGCCTGTGCTCTACATGCTATTCAAAGCCAGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG232677 representing NM_001256964
Red=Cloning site Green=Tags(s)

MMGRSPGFAMQHIVGVPHVLVRRGLLGRDLFMTRTLCSPGPSQPGEKRPEEVALGLHHRLPALGRALGHS
 IQQRATSTAKTWWDREYEFVGLNEVREAQGVTEAEKVFVARGLVREAREDELVHQAKLKEVRDLDRV
 SREDSQYLELATLEHRLQEEKRLRTAYLRAEDSEREFSLFSAVRESHEKERTRAERTKNWSLIGSVL
 GALIGVAGSTYVNRVRLQELKALLLEAQKGPVSLQEAIREQASSYSRQQRDLHNLMDLRLVHAAGPGQ
 DSGSQAGSPPTDRDQVDVLSAALKEQLSHSRQVHSCLEGLREQLDGLEKTCQMAGVVQLVKSAAHPGLV
 EPADGAMPSFLLEQGSMLALSDTEQRLEAQVNRNTIYSTLVTCVTFVATLPVL YMLFKAS

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001256964

ORF Size: 1233 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_001256964.1](#), [NP_001243893.1](#)

RefSeq Size: 1627 bp

RefSeq ORF: 1236 bp

Locus ID: 79714

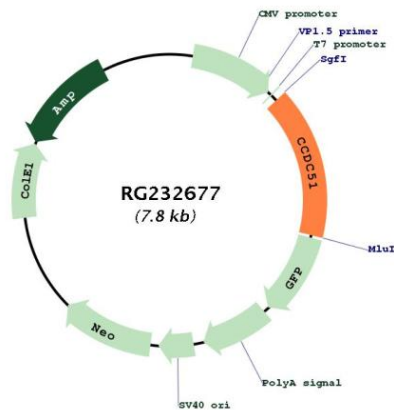
UniProt ID: [Q96ER9](#)

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 RG232677