

Product datasheet for RC203890

CCDC51 (NM_024661) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CCDC51 (NM_024661) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CCDC51
Synonyms:	MITOK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC203890 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGACCAGGACTCTCTGCAGCCAGGCCAAGCCAGCCCGGAGAGAAAAGACCTGAGGAGGTGGCCCTGG
GGCTGCACCACCGCCTCCAGCACTGGGAAGAGCCCTGGGGCACAGCATTAGCAACGAGCGACCTCCAC
AGCCAAGACTTGGTGGGACAGATATGAAGATTTGTTGGACTCAACGAGGTTGAGAGGCCAGGAAAAG
GTGACAGAGGCTGAGAAAGTGTTCATGGTGGCTCGAGGGCTTGTCCGAGAGGCTCGGGAGGACTTGAAG
TTCACCAGGCCAAGCTGAAGGAGGTGAGGGACCGCTTGGACCGTGTCTCCAGGGAGGACAGTCAGTACTT
GGAAGTGGCTACTCTCGAGCACAGGATGCTGCAGGAGGAGAAGAGGCTTGCACAGCCTATCTGCGTGCA
GAAGACTCTGAGCGAGAGAAATTTCTCCCTCTTCTGCGAGCTGTGCGGGAAAGTCATGAGAAGGAGCGCA
CAAGGGCTGAGAGGACCAAGAAGTGGTCCCTCATTGGCTCAGTCTGGGGCCCTGATTGGTGTGGCTGG
CTCCACCTATGTGAACCGTGTGCGACTACAGGAGCTGAAGGCTTACTCCTGGAGGCGCAGAAGGGGCTT
GTGAGTCTCCAAGAGGCCATTGAGAACAGGCGTCTAGCTACTCCCGCCAGCAGAGGGACCTCCACAATC
TCATGGTGGACTTGAAGGGCCTGGTACATGCTGCTGGGCCAGGGCAGGACTCTGGGTACAGGCAGGTAG
TCCCCCGACCAGAGACAGAGATGTAGATGTCCTTTCAGCTGCCTTGAAGAGCAGCTTAGTCATTCCAGG
CAAGTCCATTCATGCTAGAAAGCTTACGAGAGCAGCTTGTATGGCCTAGAAAAGACTTGTAGCCAAATGG
CTGGGGTGGTTCAGCTTGTAAAGTCTGCAGCACACCCAGGCTTGGTGAACCAGCAGACGGGGCTATGCC
CAGCTTCTTGGTGGAGCAGGGGAGCATGATCTTGGCACTGTGAGACACGGAGCAGAGACTAGAAGCCCAA
GTCAACAGGAACACCATCTATAGCACCTGGTACCTGTGTGACATTTGTGGCCCACTGCCTGTGCTCT
ACATGCTATTCAAAGCCAGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC203890 protein sequence
Red=Cloning site Green=Tags(s)

MRTLCSPPGSPQGEKRPEEVALGLHHRLPALGRALGHSIQQRATSTAKTWWDYEEFVGLNEVREAQ GK
VTEAEKVFMVARGLVREAREDLVHQAKLKEVRDLDRVSRSDSQYLELATLEHRMLQEEKRLRTAYLRA
EDSEREKFSLFSAAVRESHEKERTRAERTKNWSLIGSVLGALIGVAGSTYVNRVRLQELKALLLEAQKGP
VSLQEAIREQASSYSRQQRDLHNLMDLRLGLVHAAGPGQDSGSQAGSPPTRDRDQVVLVSAALKEQLSHSR
QVHSCLEGLREQLDGLEKTC SQMAGVVQLVKSAHPGLVEPADGAMP SFLLEQGS MILALSDTEQRLEAQ
VNRNTIYSTLVTCVTFVATLPVL YMLFKAS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6539_b12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

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: 1519 bp

RefSeq ORF: 1236 bp

Locus ID: 79714

UniProt ID: [Q96ER9](#)

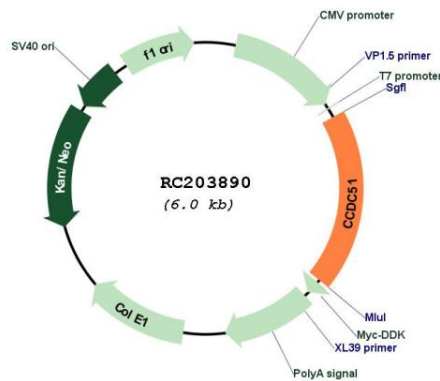
Cytogenetics: 3p21.31

Protein Families: Transmembrane

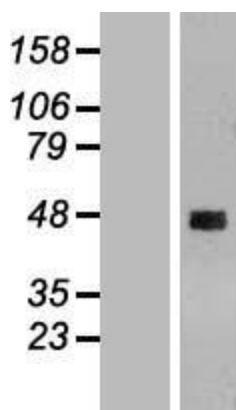
MW: 42.4 kDa

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]

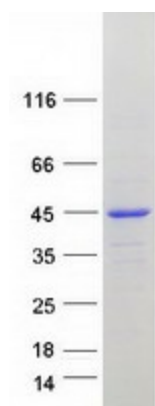
Product images:



Circular map for RC203890



Western blot validation of overexpression lysate (Cat# [LY411177]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203890 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CCDC51 protein (Cat# [TP303890]). The protein was produced from HEK293T cells transfected with CCDC51 cDNA clone (Cat# RC203890) using MegaTran 2.0 (Cat# [TT210002]).