

Product datasheet for **RC209488**

MCCC2 (NM_022132) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MCCC2 (NM_022132) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MCCC2
Synonyms:	MCCB; MCCCbeta
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC209488 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTGGGCGCTCCTGAGGTTAGCCCTGCGGCCGTGTGCCCGCCCTCTCCCGCCGGCCGCGCCCTATC
 ACGGGGACTCGGTGGCCTCGCTGGGCACCCAGCCGGACTTGGGCTCTGCCCTCTACCAGGAGAACTACAA
 GCAGATGAAAGCACTAGTAAATCAGCTCCATGAACGAGTGGAGCATATAAACTAGGAGGTGGTGAAGAAA
 GCCCGAGCACTTACATATCAAGAGGAAAATAATTGCCAGAGAAAGAATTGACAATCTCATAGACCCAG
 GGTCTCCATTTCTGGAATTATCCAGTTTGAGGTTACCAGTTATATGACAATGAGGAGGTGCCAGGAGG
 TGGCATTATTACAGGCATTGGAAGAGTATCAGGAGTAGAATGCATGATTATTGCCAATGATGCCACCCTC
 AAAGGAGGTGCCTACTACCCAGTACTGTGAAAAACAATTACGGGCCCAAGAAATTGCCATGCAAAAACA
 GGCTCCCTGCATCTACTTAGTTGATTCGGGAGGAGCATACTTACCTCGACAAGCAGATGTGTTCCAGA
 TCGAGACCACTTTGGCCGTACATTCTATAATCAGGCAATTATGTCTTCTAAAAATATTGCACAGATCGCA
 GTGGTCATGGGCTCCTGCACCGCAGGAGGAGCCTATGTGCTGCCATGGCTGATGAAAACATCATTGTAC
 GCAAGCAGGGTACCATTTCTTGGCAGGACCCCTTGGTTAAAGCGGCAACTGGGGAAGAAGTATCTGC
 TGAGGATCTTGGAGGTGCTGATCTTCAATTGCAGAAAGTCTGGAGTAAGTGACCACTGGGCTTTGGATGAT
 CATCATGCCCTTCACTTAACTAGGAAGGTTGTGAGGAATCTAAATATCAGAAGAAATGGATGTACCA
 TTGAACCTTCTGAAGAGCCTTTATTTCTGCTGATGAATTGTATGGAATAGTTGGTGCTAACCTTAAGAG
 GAGCTTTGATGTCCGAGAGGTCATTGCTAGAATCGTGGATGGAAGCAGATTCAGTGTGCTTCAAGCCTT
 TATGGAGACACATTAGTTACAGGATTTGCTCGAATATTTGGGTACCCAGTAGGTATCGTTGGAACAACG
 GAGTTCTCTTTTCTGAATCTGCAAAAAAGGGTACTCACTTTGTCCAGTTATGCTGCCAAAAGAAATATTCC
 TCTGCTGTTCTTCAAAACATTACTGGATTTATGGTTGGTAGAGAGATGAAGCTGAAGGAATTGCCAAG
 GATGGTGCCAAGATGGTGGCCGCTGTGGCCTGTGCCCAAGTGCCTAAGATAACCCCTCATCTTTGGGGCT
 CCTATGGAGCCGAAACTATGGGATGTGTGGCAGAGCGTATAGCCCAAGATTTCTCTACATTTGGCCAAA
 TGCTCGTATCTCAGTGTGGGAGGAGAGAGCCAGCCAAATGTGTTGGCCACGATAACAAAGGACCAAGA
 GCCCGGGAAGGAAAGCAGTTCTCCAGTGTGATGAAGCGGCTTTAAAAGAGCCCATCATTAAAGATTTG
 AAGAGGAAGGAAACCCTTACTATTCCAGCGCAAGGGTATGGGATGATGGGATCATTGATCCAGCAGACAC
 CAGACTGGTCTTGGGTCTCAGTTTATGTCAGCCCTCAACGCACCAATAGAGAAGACTGACTTCGGTATC
 TTCAGGATG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC209488 protein sequence
 Red=Cloning site Green=Tags(s)

MWAVLRLALRPCARASPAGPRAYHGDSVASLGTQPDLGSALYQENYQMKALVNQLHERVEHIKLGGEK
 ARALHISRKLLPRERIDNLIDPGSPFLELSQFAGYQLYDNEEVPGGIITGIGRVSGVECMIIANDATV
 KGGAYYPVTVKKQLRAQEIAMQNRLPCIYLVDSGGAYLPRQADVFPDRDHFGRTFYNQAIMSSKNIAQIA
 VVMGSCCTAGGAYVPAMADENIIVRKQGTIFLAGPPLVKAATGEEVSAEDLGGADLHCRKSGVSDHWALDD
 HHALHLTRKVVRLNYQKLDVTIEPSEEPLFPADEL YGIVGANLKRSDVREVIARIVDGSRFTEFKAF
 YGDTLVTGFARIFGYYPVIGVNGVLFSESAKKGTHFVQLCCQRNIPLLFQNIITGMVGREYEAEGIAK
 DGAKMVAAVACAQVPKITLIIGGSYGAGNYGMCGRAYSFRFLYIWPNARISVMGGEQAANVLATITKDQR
 AREGKQFSSADEAALKEPIIKKFEEEGNPYYSSARVWDDGIIDPADTRLVLGLSFAALNAPIEKDFGI
 FRM

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6231_h07.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_022132

ORF Size: 1689 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

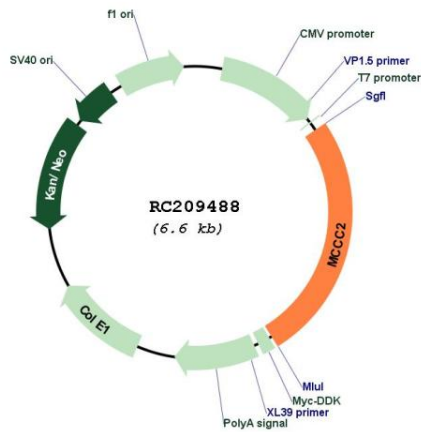
RefSeq: [NM_022132.3](#), [NP_071415.1](#)

RefSeq Size: 3696 bp

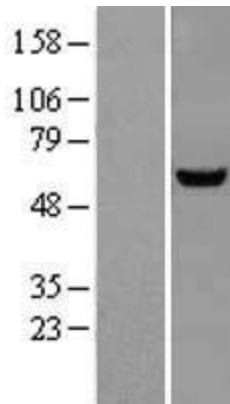
RefSeq ORF: 1692 bp

Locus ID: 64087

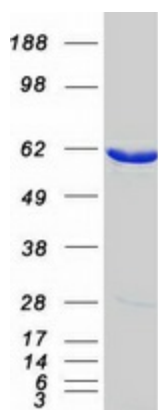
UniProt ID:	<u>Q9HCC0</u>
Cytogenetics:	5q13.2
Domains:	Carboxyl_trans
Protein Families:	Druggable Genome
Protein Pathways:	Metabolic pathways, Valine, leucine and isoleucine degradation
MW:	61.3 kDa
Gene Summary:	This gene encodes the small subunit of 3-methylcrotonyl-CoA carboxylase. This enzyme functions as a heterodimer and catalyzes the carboxylation of 3-methylcrotonyl-CoA to form 3-methylglutaconyl-CoA. Mutations in this gene are associated with 3-Methylcrotonylglycinuria, an autosomal recessive disorder of leucine catabolism. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, May 2018]

Product images:


Circular map for RC209488



Western blot validation of overexpression lysate (Cat# [LY411752]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209488 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MCCC2 protein (Cat# [TP309488]). The protein was produced from HEK293T cells transfected with MCCC2 cDNA clone (Cat# RC209488) using MegaTran 2.0 (Cat# [TT210002]).