

Product datasheet for **RC200518**

ZCWCC1 (MORC2) (NM_014941) Human Tagged ORF Clone

Product data:

| | |
|--------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | ZCWCC1 (MORC2) (NM_014941) Human Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | MORC2 |
| Synonyms: | CMT2Z; DIGFAN; ZCW3; ZCWCC1 |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |
| Cell Selection: | Neomycin |



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ORF Nucleotide Sequence:

>RC200518 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCTTTGCTTTTGGATGATGGAGCAGGAATGGATCCAAGTGATGCTGCCAGTGTGATCCAGTTTGGGA
 AGTCGGCCAAGCGAACACCTGAGTCTACTCAGATTGGGCAGTACGGGAATGGGTTAAAATCGGGCTCAAT
 GCGCATTGGGAAGGATTTTATCCTGTTCACCAAGAAGGAAGACCCATGACCTGCCTCTTCTGTCTCGC
 ACGTTTCATGAGGAAGAAGGCATTGATGAAGTGATAGTCCCACTGCCACCTGGAATGCTCGGACCCGGG
 AACCTGTCACAGACAATGTAGAGAAATTTGCCATTGAGACAGAACTCATCTATAAGTACTCTCCATTCCG
 CACTGAGGAGGAAGTGTGACCCAGTTTATGAAGATTCCTGGGGACAGCGGAACATTGGTGATCATCTTC
 AATCTCAAATCATGGATAATGGAGAGCCAGAAGTACACATAATCTCAAATCCAAGAGATATCCAGATGG
 CAGAGACGTCCCAGAGGGCACGAAGCCAGAGCGGCGCTCGTTCCGTGCCTATGCCGCTGTGCTCTATAT
 TGATCCCCGGATGAGGATCTTCATCCATGGGCACAAGGTGCAGACCAAGAGGCTCTCCTGTGCCTGTAC
 AAGCCCAGGATGTACAAGTACACGTCAAGCCGTTTCAAGACCCGTGCGGAGCAGGAGGTGAAGAAAGCAG
 AGCACGTAGCAAGGATTGCTGAAGAGAAGGCGCGGGAGGCAGAGAGCAAAGCTCGGACATTAGAAGTACG
 CCTAGGTGGAGACCTCACGCGGGACTCCAGGGTGTGTTGCGACAGGTCCAGAACAGAGCCATCACTCTG
 CGCAGAGAAGCCGATGTCAAGAAGAGGATCAAGGAGGCCAAGCAGCGAGCACTTAAAGAACCTAAGGAAC
 TGAATTTTGTGGTGTCAACATTGAACACCCGGGATCTGGATGGCATGTTTCACTACAAGTGTAGCCG
 ACTGATCAAAATGTATGAGAAAGTGGGCCACAGCTGGAAGGGGGCATGGCATGTGGCGGGTGTGGG
 GTTGTGATGTGCCCTACCTGGTCTGGAGCCTACACACAACAACAGGACTTTGCTGATGCCAAGGAGT
 ACCGGACCTGCTCCGAGCAATGGGGAGCACCTGGCGCAGTATTGGAAGGATATTGCCATCGCCAGAG
 GGAATCATCAAGTTCTGGGATGAGTTTGGCTACCTCTCTGCCAACTGGAACAGCCCCCATCCAGTGAG
 CTGCGTTACAACCGCGGAGAGCTATGGAATCCCCACCACCATCCAGTGCATTGTGTCTGAAATGGA
 GAACCCTCCCCTTCCAGCTGAGTCTGTGGAAAAAGATTACCCTGACACCTGGGTTTGTCCATGAACCC
 TGATCCTGAACAGGACCGGTGTGAGGCTTCTGAACAAAAGCAGAAGGTTCCCTGGGAACATTAGAAAAG
 GACATGAAGACGCAGGAAGAGAAGCAGAAAACAAGTACAGAGAAAATTCCGACGAGCAGGAGAAGCTGG
 AGGCCCTTCCAGAAAACACCCATCCGCTCCCAAGCAGACCTGAAGAAATGTCCTTGGAAAGTACCAC
 CAGACCTTCCACTGAGGAACCTGTGCGTAGACCTCAGCGTCTCGGTGCGCCCTTACCTGCTGTGATC
 AGGAACGCCCCAGCAGACCCCTTCTTTGCCAACTCCTAGACCAGCCAGCCAGCCCGAAAGGCTCCTG
 TCATCAGCAGTACCCAAAGCTCCCTGCTTTGGCAGCCCGGAGGAGGCCAGCACATCTAGGCTGTCCA
 GCCACCTGAGGCACCCCGAAAGCCTGCCAACACTCTCGTCAAGACTGCATCCCGACCTGCCCTCTGGTG
 CAGCAACTGTACCATCTTTACTGCCAACTCCAAGAGCCCTCGGGAGGTTCTTCTCCCAAAGTATCA
 AGACTCCAGTGGTGAAGAAGACAGAGTACCCATCAAATCTCCCGGCTACCCCTAGTCGGAAGCGGAG
 TGTGCGAGTTTCTGATGAGGAAGAAGTTGAGGAGGAAGCTGAGAGGAGGAAGGAGAGGTGCAAGCGGGC
 AGATTTGTGTAAGGAGGAAAAGAAGGACTCGAATGAGCTCTCAGACAGTGTGGGGAAGAGGACTCGG
 CTGACCTCAAGAGAGCTCAGAAAGATAAAGGGCTGCACGTGGAGGTGCGTGTGAACAGGGAGTGTACAC
 GGGCCGTGTACAGCCGTGGAGGTGGCAAGCATGTGGTGGGTGGAAGGTGAAGTTTACTACGTGCCCC
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 CTCCGGAACATCAGAGCCTTGATACACAACAGGAGGGCGGGGAGGAGGAGGTGGGCCCTGTGGCCAGCA
 GGCCATAGCTGTGCGAGACCCCTCACTTCCGAATGCCTCCGATTGAGCCTGACACCACTGCCCTGAGC
 ACCAATCAGAGACCATCGACCTGCTTGTCCAGATCCTCCGGAATTGTTTACGGTACTTCTGCCTCCAA
 GTTTCCCATCTCCAAGAAGCAGCTGAGTGCTATGAATTCAGATGAGCTAATATCTTTTCTCTGAAGGA
 GTACTTCAAGCAATATGAAGTAGGGCTCCAAAACCTGTGCAATCCTACCAGAGCCGTGCTGACTCCCG
 GCCAAGGCTCCGAGGAAAGCCTGCGCACCTCCGAGAGGAAGCTCCGCGAGACGGAGGAGAAGCTGCAGA
 AGCTGAGGACCAACATCGTGGCACTCTGCAAAAGGTGCAGGAGGACATAGACATCAACACAGATGATGA
 GCTGGACGCTACATTGAGGACCTCATACCAAGGGGAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC200518 protein sequence
 Red=Cloning site Green=Tags(s)

MLCFLDDGAGMPSDAASVIQFGKSAKRTPESTQIGQYGNLKS GSMRIGKDFILFTKEDTMTCLFLSR
 TFHEEEGIDEVIVPLPTWNARTREPVTDNVEKFAIETELIYKYSFPRTEEEVMTQFMKIPGDSGLV IIF
 NLKLMNDNGEPELDIISNPRDIQMAETSPEGTKPERRSFRAYAALYIDPRMRIFIHGHKVQTKRLSCCLY
 KPRMYKYTSSRFKTRAEQEVKKAHEHVARIAEEKAREAESKARTLEVRLGGDLTRDSRVMLRQVQNRITL
 RREADVKKRIKEAKQRALKEPKELNFVFGVNIHRDLDMFIYNCSRLIKMYEKVGPQLEGMACGGVVG
 VVDVPYLVLEPTHNKQDFADAKEYRHL LRAMGEHLAQYWKDIAIAQRGIKFWDEFGLSANWNQPPSSE
 LRYKRRRAMEIPTTIQCDCCLKWRTL PFQLSSVEKDYPDTWVCSMNPDPPEQDRCEASEQKQK VPLGTFRK
 DMKTQEEKQKQLTEKIRQQEKLEALQKTTPIRSQADLKKLPLEVTTTRPSTEEPVRRPQRPRSPPLPAVI
 RNAPSRPPSLTPRPASQPRKAPVISSTPKL PALAAREEASTSRL LQPPEAPRPANTLVKTASRPAPLV
 QQLSPSLLPNSKSPREVPSPKVIKTPVVKKTESPIKLSPATPSRKRSVAVSDEEEVEEEAERRKERCKRG
 RFVVKEEKKDSNELSDSAGEEDSADLKRAQKDKGLHVEVRVNWREYTGRTAVEVGKHHVVRKVKFDYVP
 TDTTPDRRWVEKGSDEVRLMKPPSPEHQSLDTQQEGGEEVGPVAQQAIAVAEPSTSECLRIEPDTTALS
 TNHETIDLLVQILRNCLRYFLPPSFPISKKQLSAMNSDELSIFPLKEYFKQYEVGLQNL CNSYQSRADSR
 AKASEESLRTSERKLRTEEKLQKLRTNIVALLQKVQEDIDINTDDELDAYIEDLITKGD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6577_c12.zip

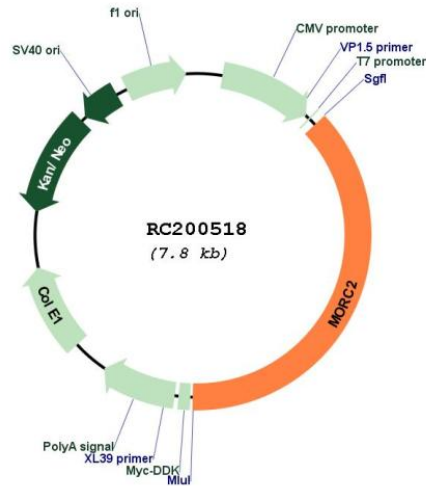
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:


ACCN: NM_014941

ORF Size: 2910 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_014941.3](#)

RefSeq Size: 4467 bp

RefSeq ORF: 2913 bp

Locus ID: 22880

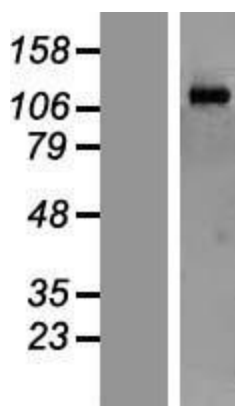
UniProt ID: [Q9Y6X9](#)

Cytogenetics: 22q12.2

MW: 110.7 kDa

Gene Summary: This gene encodes a member of the Microrchidia (MORC) protein superfamily. The encoded protein is known to regulate the condensation of heterochromatin in response to DNA damage and play a role in repressing transcription. The protein has been found to regulate the activity of ATP citrate lyase via specific interaction with this enzyme in the cytosol of lipogenic breast cancer cells. The protein also plays a role in lipogenesis and adipocyte differentiation. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Feb 2016]

Product images:



Western blot validation of overexpression lysate (Cat# [LY414907]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200518 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).