

## Product datasheet for **MR209043**

### **Orc2 (NM\_008765) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Orc2 (NM_008765) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Orc2
Synonyms:	AU041563; Orc2l
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR209043 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGAGCACTCTGCAGTTAAAGGAAACCAAGGTGCCAAGCGTGCAGTTTGTGGGAGATGATGATGTTCTTA  
 GTCACATTCTGGACAGAGAAGGAGGAACATAAATTAAGAAGGAGAAAGCTCAGCTTTTGGTCAATCCCA  
 GAAAGTAATAAGAAGGCAGACTGTGAGTTGGAGAAAAGTGACCTGGAAGTTTTAGAGGATCAGAACTAC  
 GTGAAAGTCTTGGGAAGAAATATCAAGAATCCTTGGGAAACGGCTCTGCTAAAGATGGTAGGAATAAAG  
 TTTATTCTTTCAACAAAGAAAGCACCTGAAGAGATGACTAAATGGCTTTAGAACTAGCAAAAACATC  
 AGGAAAAAAGGATCCACTTGACTCAAATGATCCTGAAATCACAAAAACATTGCTCAAAAAAGTAAAGGG  
 CATTCTACTTCAGAGAAAGCTCCACTGGTGAACAATAACAAAACCTGAATTTCTGTCAACACAACCTCATA  
 ATCTAAGGAAAAGAATAATAGCGTCAAGGTCTCATTATGACAGTGAGAGTGAGTATTCTGCTCCAGCTC  
 AGAGGATGATGAAGAGGCTACAAAAGACGAAGAAGAAGACTAATGTGGCCAGGCTCTCTCAGAAGAGT  
 CAAGGTCAAGAATAGACTTCTCCAGCTCCTGTTTCCAAAGAGACTGCCTAAGAAAAAGAAAAGAGACA  
 AAGCGAGTGACTTGGTAGAAGAATATTTGAAGCCCATAGTAGTTCAAAAGTCTTAACATCTGATCGAAC  
 GCTGCAGAGGCTGAGGAGAGCCAGAGTGGATCAGAAAACCTCTGCATAACTTACTGAGAAAATTTGTGCC  
 TCCTTTTCTGCTGAAATTGAACGATTGAATCAACAGCATGAGAAACTGTTTCATAAATGGATGCTTCAGT  
 TACACCTTGGGTTCAACATTGTGCTTTATGGCTTGGGGTCCAAGAGAGATTTACTAGAAAAGTTTCGAAC  
 CACCATGCTTCAAGATTCATTGCTGTCATCAACGGCTACTTCTGGCGTCAGTGTGAAATCAATC  
 CTGAACTCTATAACTGAAGATGCTCCTCAGTCATGTGGTACTTTCCAAAGTGTTCGGATCAGCGGGACT  
 GGATAATAACAGATTTAAAGAAGATTCTTCTTAGAACTTCTCCTTATCCACAATTTGGATAGCCA  
 AATGTTAAGAGGAGACAATAGCCAGCAAATCTTGGACAGTTGTATCATTACATAACGTGTATCTCATA  
 GCATCTATTGACCATCTCAATGCTCCTCTCATGTGGGATCATGCAAAGCAGAGTCTTTATAACTGGCTTT  
 GGTATGAAACTACTACATACAGTCCTTATACTGAAGAAACCTCCTATGAGAACTCCCTTCTGGTTAAGCA  
 GTCTGGATCTCTGCCACTTAGTCTCTGATTGATGCTTACGAAGCCTTACCCCAATGCAAGGGGGATT  
 TTCAGGCTACTTATGAAGTTCAGCTGGATAACCAGGACAGCCCTTCTACATTGGACTTCTTTTCAAG  
 ATTTTTACCAGCAGTGTAGGGAAGCATTCTTGTAAACAGTGATCTCACACTCCGAGCCAGTAACTGA  
 ATTTAGGGACCACAACTTATAAGAACAAGAAGGGAAGTATGATGGTGTAGAATATTTATTAATTCCTGTT  
 GACAGCGGAATATTGGCTGATTTCTTGGAGAAGGAAGAGGAGGAGCA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR209043 protein sequence  
 Red=Cloning site Green=Tags(s)

MSTLQLKETKVPVSVQFVGDVVLSHILDREGGTLKKEKAQLLVNPQKVIKKADCELEKSDLEVLEDQNY  
 VKVLGRNIQESLNGSAKDGRNKVYVSFQQRKHPEEMTKLALAKTSKGDPLDSNDPEITKNIAQKSKG  
 HSTSEKAPLVNHNKTEFLSTQPHNLRKRIIASRSHYDSESEYSASSSEDDEEATKDEEEDTNVARLSQKS  
 QGQNRLLPAPVSKETLPKPKKRDKASDLVEEYFEAHSSKVLTSRDLQRLRRARVDQKTLHNLRLKFPV  
 SFSAEIERLNQQHEKLFHKWMLQLHLGFNIVLYLGLSKRDLEKFRITMLQDSIHVVINGYFPGVSVKSI  
 LNSITEDVLSHVGTFSVLDQRDWIINRFKEDSSLELFLLIHNLDSQMLRGDNSQQILGQLSSLHNVYLI  
 ASIDHLNAPLMWDHAKQSLYNLWYETTTYSPTYEETSYSNSLLVKQSGSLPLSSLIHVLRSLTPNARGI  
 FRLLMKFQLDNQDPSYIGLSFQDFYQQCREAFLVNSDLTLRAQLTEFRDHKLIRTKKGTGVEYLLIPV  
 DSGILADFLEKEEEEE

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**



**ACCN:** NM\_008765

**ORF Size:** 1731 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\\_008765.3](#)

**RefSeq Size:** 3561 bp

**RefSeq ORF:** 1731 bp

**Locus ID:** 18393

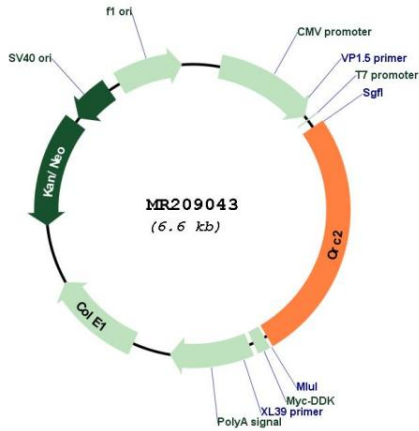
**UniProt ID:** [Q60862](#)

**Cytogenetics:** 1 C1.3

**MW:** 65.9 kDa

**Gene Summary:** Component of the origin recognition complex (ORC) that binds origins of replication. DNA-binding is ATP-dependent. The specific DNA sequences that define origins of replication have not been identified yet. ORC is required to assemble the pre-replication complex necessary to initiate DNA replication (By similarity). Binds histone H3 and H4 trimethylation marks H3K9me3, H3K20me3 and H4K27me3. Stabilizes LRWD1, by protecting it from ubiquitin-mediated proteasomal degradation. Also stabilizes ORC3 (By similarity).[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MR209043