

## Product datasheet for **MG217216**

### **Orc2 (NM\_001025378) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Orc2 (NM_001025378) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Orc2
Synonyms:	AU041563; Orc2l
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG217216 representing NM\_001025378  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGAGCACTCTGCAGTTAAAGGAAACCAAGGTGCCAAGCGTGCAGTTTGTGGGAGATGATGATGTTCTTA  
 GTCACATTCTGGACAGAGAAGGAGAATCCTTGGGAAACGGCTCTGCTAAAGATGGTAGGAATAAAGTTTA  
 TTCTTTTCAACAAAGAAAGCACCCCTGAAGAGATGACTAAATTGGCTTTAGAACTAGCAAAAAACATCAGGA  
 AAAAAGGATCCACTTGACTCAAATGATCCTGAAATCACAAAAACATTGCTCAAAAAAGTAAAGGCATT  
 CTACTTCAGAGAAAGCTCCACTGGTGAACAATAACAAAAGTGAATTTCTGTCAACACAACCTCATAATCT  
 AAGGAAAAGAATAATAGCGTCAAGGTCTCATTATGACAGTGAGAGTGAGTATTCTGCTCCAGCTCAGAG  
 GATGATGAAGAGGCTACAAAAGACGAAGAAGAAGACACTAATGTGGCCAGGCTCTCTCAGAAGAGTCAAG  
 GTCAGAATAGACTTCTCCAGCTCCTGTTTCAAAGAGACACTGCCTAAGAAAAAGAAAAGACAAAGC  
 GAGTGACTTGGTAGAAGAATATTTGAAGCCCATAGTAGTTCAAAGTCTTAACATCTGATCGAACGCTG  
 CAGAGGCTGAGGAGAGCCAGAGTGGATCAGAAAACCTGCAATAACTTACTGAGAAAAATTTGTGCCTTCT  
 TTTCTGCTGAAATTGAACGATTGAATCAACAGCATGAGAAAACGTTTCATAAATGGATGCTTCAGTTACA  
 CCTTGGGTTCAACATTGTGCTTTATGGCTTGGGTCAGAGAGATTTACTAGAAAAGTTTGAACACC  
 ATGCTTCAAGATTCATTCATGTTGTCATCAACGGCTACTTCTGGCGTCAGTGTGAAATCAATCCTGA  
 ACTCTATAACTGAAGATGCTCCTCAGTCATGTGGTACTTTCCAAAGTGTCTGGATCAGCGGGACTGGAT  
 AATAAACAGATTTAAGAAGATCTTCTTTAGAACTCTTCTTCTTATCCACAATTTGGATAGCCAAATG  
 TTAAGAGGAGACAATAGCCAGCAAATCTTGGACAGTTGTCATCATTACATAACGTGTATCTCATAGCAT  
 CTATTGACCATCTCAATGCTCCTCATGTGGATCATGCAAAGCAGAGTCTTTATAACTGGCTTTGGTA  
 TGAAACTACTACATACAGTCCTTATACTGAAGAAACCTCCTATGAGAACTCCCTTCTGGTTAAGCAGTCT  
 GGATCTCTGCCACTTAGTCTCTGATTCATGTCTTACGAAGCCTTACCCCAATGAAGGGGATTTTCA  
 GGCTACTTATGAAGTTCAGCTGGATAACCAGGACAGCCCTTCTACATTGGACTTTCTTTTCAAGATTT  
 TTACCAGCAGTGTAGGGAAGCATTCTTGTAAACAGTGTCTCACACTCCGAGCCAGTTAACTGAATTT  
 AGGGACCACAACTTATAAGAACAAGAAGGGAAGTGTGGTGTAGAATATTTAATTCCTGTTGACA  
 GCGGAATATTGGCTGATTTCTTGGAGAAGGAAGAGGAGGAGCA

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>MG217216 representing NM\_001025378  
 Red=Cloning site Green=Tags(s)

MSTLQLKETKVPVSVQFVGGDDVLSHILDREGESLGNLSAKDGRNKVYSFQQRKHPEEMTKLALAKTSG  
 KKDPLDSNDPEITKNIAQKSKGHSTSEKAPLVNNNKTEFLSTQPHNLRKRIIASRSHYDSESEYSASSSE  
 DDEEATKDEEEDTNVARLSQKSQGNRLLPAPVSKETLPKPKKRDKASDLVEEYFEAHSSSKVLTSDRTL  
 QRLRRARVDQKTLHNLRLKRVPSFSAEIERLNQHEKLFHKWMLQLHLGFNIVLYLGSKRDLLEKFRFT  
 MLQDSIHVVINGYFPGVSVKLSILNSITEDVLSHVGTTFQSVLDQRDWINRKFEDSSLELFLLIHNLDSQM  
 LRGDNSQQILGQLSSLHNHYLIAIDHLNAPLMWDHAKQSLYNWLWYETTTYSPTYEETSYSNLLVKQS  
 GSLPLSSLIHVLRSLTPNARGIFRLMKFQLDNQDPSYIGLSFQDFYQQCREAFLVNSDLTLRAQLTEF  
 RDHKLIRTKKGTGVEYLLIPVDSGILADFLKEKEEEEA

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-Mlul

Cloning Scheme:



ACCN: NM\_001025378

ORF Size: 1584 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\\_001025378.2](#), [NP\\_001020549.1](#)

RefSeq Size: 3030 bp

RefSeq ORF: 1587 bp

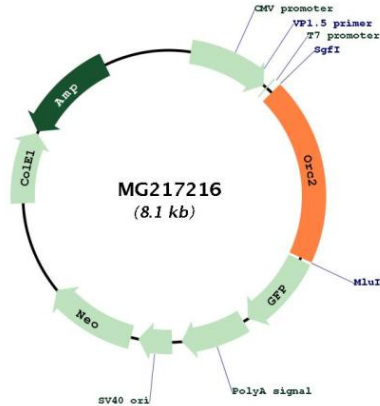
Locus ID: 18393

Cytogenetics: 1 C1.3

**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 MG217216