

Product datasheet for **SC110965**

ORC2 (NM_006190) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ORC2 (NM_006190) Human Untagged Clone
Tag:	Tag Free
Symbol:	ORC2
Synonyms:	ORC2L
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC110965 sequence for NM_006190 edited (data generated by NextGen Sequencing)

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ATGAGTAAACCAGAATTAAGGAAGACAAGATGCTGGAGGTTCACTTTGTGGGAGATGAT
GATGTTCTTAATCACATTCTAGATAGAGAAGGAGGAGCTAAATTGAAGAAGGAGCGAGCG
CAGCTTTTGGTCAACCCCAAAAAATAATAAAGAAGCCAGAATATGATTTGGAGGAAGAT
GACCAGGAGGTCTTAAAGATCAGAACTATGTGGAATTATGGGAAGAGATGTTCAAGAA
TCATTGAAAAATGGCTCTGCTACAGGTGGTGAAATAAAGTTTATTCTTTTCAGAATAGA
AAACACTCTGAAAAGATGGCTAAATTAGCTTCAGAACTAGCAAAAACACCACAAAAAAGT
GTTTCATTGAGTTGAAGAATGATCCTGAGATTACGATAAACGTTCTCAAAGTAGCAAG
GGCCATTCTGCTTCAGACAAGGTTCAACCGAAGAACAATGACAAAAGTGAATTTCTGTCA
ACAGCACCTCGTAGTCTAAGAAAAAGATTAATAGTTCCAAGGTCTCATTCTGACAGTGAA
AGCGAATATTCTGCTTCCAACCTCAGAGGATGATGAAGGGGTTGCACAGGAACATGAAGAG
GACACTAATGCAGTCATATTCAGCCAAAAGATTCAAGCTCAGAATAGAGTAGTTTCAGCT
CCTGTTGGCAAGAAACACCTTCTAAGAGAATGAAAAGAGATAAAACAAGTGACTTAGTA
GAAGAATATTTTGAAGCTCACAGCAGTTCAAAAGTTTTAACCTCTGATAGAACTGCAG
AAGCTAAAGAGAGCTAAACTGGATCAGCAAACTTTGCGTAACTTATTGAGCAAGGTTTCC
CCTTCCTTTTCTGCCGAACCTAAACAACATAATCAACAGTATGAAAAATTATTTCAATAA
TGGATGCTGCAATTACACCTTGGGTTCAACATTGTGCTTTATGGTTTGGGTTCTAAGAGA
GATTTACTAGAAAGGTTTCAACCACTATGCTGCAAGATTCCATTCACGTTGTCATCAAT
GGCTTCTTTCTGGAATCAGTGTGAAATCAGTCTGAATTCTATAACAGAAGAAGTCTC
GATCATATGGGTACTTTCCGCAGTATACTGGATCAGCTAGACTGGATAGTAAACAAATTT
AAAGAAGATTCTCTTTAGAACTCTTCTTCTTATCCACAATTTGGATAGCCAGATGTTG
AGAGGAGAGAAGAGCCAGCAATCATTGGTCAGTTGTCATCTTTGCATAACATTTACCTT
ATAGCATCCATTGACCACCTCAATGCTCCTCTCATGTGGGATCATGCAAAAGCAGAGTCTT
TTAACTGGCTCTGGTATGAACTACTACATACAGTCCTTATACTGAAGAAACCTCCTAT
GAGAACTCTCTTCTGGTAAAGCAGTCTGGATCCCTGCCACTTAGCTCCCTTACTCATGTC
TTACGAAGCCTTACCCCTAATGCAAGGGGAATTTTCAGGCTACTAATAAAATACCAGCTG
GACAACCAAGGATAACCTTCTTACATTGGCCTTTCTTTTCAAGATTTTACCAGCAGTGT
CGGGAGGCATTCTCGTCAATAGTGATCTGACACTCCGGGCCAGTTAACTGAATTTAGG
GACCACAAGCTTATAAGAACAAGAAGGGAAGTATGGAGTAGAGTATTTATTAATTCCT
GTTGATAATGGAACATTGACTGATTTCTTGAAAAGGAAGAAGAGGAGGCTTGA
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Clone variation with respect to NM_006190.4
1173 c=>t

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_006190 unedited

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AAACCGACTTTTCTATAGCGCGCCGCGCAATTCGCACGAGGGTCGGGCGCGTATTACTGG
AAATTGGCTTTTCCGTTGGGGCCGAAGTACCTTCCCTGCGGCGCGGACTCAGCGGGGTG
TCGTTTCGGCCGGCGTGACGCAGCCGGATCGGCGCCAGACGGAACCTAGCGGTGACTGTA
TCTGAATTTTGCAGCTGCAGAATGTGTAGTACCTTAAAGGTTGGCAACAATGAGTAAAC
CAGAATTAAGGAAGACAAGATGCTGGAGGTTCACTTTGTGGGAGATGATGATGTTCTTA
ATCACATTCTAGATAGAGAAGGAGGAGCTAAATTGAAGAAGGAGCGAGCGCAGCTTTTGG
TCAACCCCAAAAAATAATAAAGAAGCCAGAATATGATTTGGAGGAAGATGACCAGGAGG
TCTTAAAGATCAGAACTATGTGGAATTATGGGAAGAGATGTTCAAGAATCATTGAAAA
ATGGCTCTGCTACAGGTGGTGAAATAAAGTTTATTCTTTTCAGAATAGAAAACACTCTG
AAAAGATGGCTAAATTAGCTTCAGAACTAGCAAAAACACCACAAAAAAGTGTTCATTCA
GTTTGAAGAATGATCCTGAGATTACGATAAACGTTCTCANAGTAGCAAGGGCCATTCTG
CTTNCAGACAGGTTCAACCGAAGAACCATGACAAAGTGAANTTCTGTCAACAGCACCTCG
TAGTCTAAGAAAAAGATTATAGTTNCCAGGTCTCATTCTGACAGTGAAAGCGAATATTCT
GCTTNNCCACTCAGAGATGATGAAGGGGCTGCACAGGAACCATGAGAGGGGACACTATGCA
GTCATATTCAGCCAAAAGATTNCAGCTCAGAATANAGTAGTTNCAGCTCCTGGTGGAAG
AAACACCTCTAAGAGAAATGAAGAGATAACAGTGACTTATAG
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3' Read Nucleotide Sequence:	>OriGene 3' read for NM_006190 unedited <pre> GTCCGCGGCCGCAATCTAGAGTCGAGTT TTTTTTTTTTTTTTTTTTGACGGAGAACGTATTTTATTGCAGGGATATTTTCAGGAAAAA CTTCATTTCCAAGGTCAAATATTTACAGGGGTATGTGATGACTGTAAGCTGACAACAGT AGCCAAGGGGAGCCTTTTTTTTTTCTAAAAAAAAGTCTCGCGCAAATATTCAGGAGGT TTGAAATCATCACTTTAAGGAAAAAACTGAAATATCTTACAGGGAGTTTATAGTCTACTT GACAGAGGAATCAAAATTAATTTACAGCCGCCATTAATATGCTACTCACCTGCATGTTG TTCAAGAAAAGAAAAATTTGTCAATTTACAAGAAATAATGAAAGGGTTTATTTTTTGGTGG CTTGAAAACAATTACTAAATGTAATTCAGGATTTTATTTCTTTAGCCTGGCTTTTCACT GGGATCATGAAGGCGATGGCACAACAATACTGTTCCAAATATATGACGTATTGGTCCT GGGCTTTCTAGGCTGGGTAGATACCCTATATACTCTGTTTTTCCATTATCCCACTGAA TAGTATTATAATATATCCCTCCCCTGCCCCACCAAGTACATAGCCTCAATCCAAAAGG AGAAAGCTGGATCACTCACCTCTTCCCAATCTACACCTTTTAAGTTGTTTAAAGACAAT AAGAGATGACCTGCCCTCTCCATTACACTCGTTGGGTTCTGACACACAGAATAGCAAACA AAACCAATTTACGTGATGCCCATGTCTTTATACTTNCACACTCTGGAACAAACACACTTG CAAACATCAGCTCGGGGAGTGTTAAAAGGCCCNTCAAAAATCAGAATATCTCTAGTTAA ATAATCAAAACATNCAGNTCCAATAGCCCTGAGCCACTGNTCATTTCAGCAGAGTCTCAGA GAGTATGAATGAAGGCCATTNTCTCACTGAGACCGTGCTATACTGACGTACAGCC </pre>
Restriction Sites:	NotI-NotI
ACCN:	NM_006190
Insert Size:	3200 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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:	<u>NM_006190.3</u> , <u>NP_006181.1</u>
RefSeq Size:	3138 bp
RefSeq ORF:	1734 bp
Locus ID:	4999
UniProt ID:	<u>Q13416</u>
Cytogenetics:	2q33.1
Domains:	ORC2

Protein Families: Stem cell - Pluripotency, Transcription Factors

Protein Pathways: Cell cycle

Gene Summary: The origin recognition complex (ORC) is a highly conserved six subunits protein complex essential for the initiation of the DNA replication in eukaryotic cells. Studies in yeast demonstrated that ORC binds specifically to origins of replication and serves as a platform for the assembly of additional initiation factors such as Cdc6 and Mcm proteins. The protein encoded by this gene is a subunit of the ORC complex. This protein forms a core complex with ORC3, -4, and -5. It also interacts with CDC45 and MCM10, which are proteins known to be important for the initiation of DNA replication. This protein has been demonstrated to specifically associate with the origin of replication of Epstein-Barr virus in human cells, and is thought to be required for DNA replication from viral origin of replication. Alternatively spliced transcript variants have been found, one of which is a nonsense-mediated mRNA decay candidate. [provided by RefSeq, Oct 2010]
Transcript Variant: This variant (1) encodes a functional protein.