

Product datasheet for **RC202058**

ORC1 (NM_004153) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ORC1 (NM_004153) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ORC1
Synonyms:	HSORC1; ORC1L; PARC1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>RC202058 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**GCGATCGCC**

ATGGCACACTACCCACAAGGCTGACTACCAGAAAACTTATTCATGGGTGGCAGGCCCTTGTGGATC
GAAAACCTGCACTACCAAACCTATAGAGAAATGTGTGTGAAAACAGAAGGTTGTTCCACCGAGATTCACAT
CCAGATTGGACAGTTTGTGTTGATTGAAGGGGATGATGATGAAAACCCGATGTTGCTAAATTGCTTGAG
TTGTTGCAAGATGACTCTGATCCTCCTCCTAAGAAACGTGCTCGAGTACAGTGGTTGTCCGATTCTGTG
AAGTCCCTGCCTGTAACCGCATTTGTTGGGCCGGAAGCCTGGTGCACAGGAAATATTCTGGTATGATTA
CCCGCCCTGTGACAGCAACATTAATGCGGAGACCATCATTGGCCTTGTTCGGGTGATACCTTTAGCCCCA
AAGGATGTGGTACCGACGAATCTGAAAATGAGAAGACTCTTTGTGAACTATCTGGAATGAGAAGA
AATTCAGGCCACTTTCTCAGAATAATGCGGAGTTGAATAAACACAAGAGAGTGCAGCCAAGTGCCA
GAAACCCGTGAGAGCCAAGAGTAAGAGTGCAGAGAGCCCTTCTTGACCCAGCAGAACATGTGGCCAAA
AGGATTGAATCAAGGCACTCCGCTCCTCAAACTCGCCAACTCCTACCATCCTCTTACCCCAAGAGCCA
GAAAGAGGCTGGAGCTTGCAACTTAGGTAACCCCTCAGATGTCCAGCAGACTTCATGTGCCCTCTTGGA
TTCTCCAGGAAGAATAAAACGGAAGTGGCCTTCTCGGAGATCACCTCACCTTCTAAGAGATCTCAGCCT
GATAAACTTCAAACCTTGTCTCCAGCTCTGAAAGCCCCAGAGAAAACAGAGAGACTGGACTCTCTTATA
CTGAGGATGACAAGAAGGCTTACCTGAACATCGCATAATCCTGAGAACCCGAATTGCAGCTTCGAAAAC
CATAGACATTAGAGAGGAGAGAACACTTACCCCTATCAGTGGGGACAGAGATCTTCAGTGGTGCCATCC
GTGATTTCTGAAACCAGAAAACATCAAAAAGAGGGATGCAAAAAGAAGCAAAAAGCCAGAATGAAGCGACT
CTACTCCCATCGTATCCGACAGAAAGTCTGTCTTGACTATGAATCGGATTAGGCAGCAGCTTCGGTT
TCTAGGTAATAGTAAAAGTGACCAAGAAGAGAAAGAGATTCTGCCAGCAGCAGAGATTTCCAGACTTAGC
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GATCTTCTTGAAGTCATCCTTACATACCTCACGAAGGTGCCAAAGAAGAGTCTCAAGCCTAGAACGCC
ACGTTGTGCCCTCCTCAGATCCGTAGTGAAGCCTGGCTGCCAGGAGCCAGCCAGTGTGCTGGAGGAA
GCCCGACTGAGGCTGCATGTTTCTGCTGTACCTGAGTCTTCCCTGTCCGGAACAGGAATTCCAAGACA
TCTACAATTTGTGAAAGCAAACCTCTTGACCATACCGAGGGTGCATGTACATCTCCGGTGTCCCTGG
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CCGAGGGTACCTCAGGAAACCACCGTCTGCTTGTGGATGAGCTCGACCTTCTGTGGACTCACAAACAA
GACATAATGTACAATCTCTTTGACTGGCCACTCATAAGGAGGCCCGGCTTGTGGTCTTGCAATTGCCA
ACACAATGGACCTGCCAGAGCGAATCATGATGAACCGGTGTCCAGCCGACTGGGTCTTACCAGGATGTG
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ACATCTGCAGGCGTGCCACAGAGATCTGTGAGTCTCCAGCAGAAGCCTGACTCCCTGGCCTGGTCC
CATAGCCCACTCAATGGAAGCTGTGGATGAGATGTTTTTTCATCATACATCACGGCCATCAAAAATTCC
TCTGTTCTGGAACAGAGCTTCTGAGAGCCATCCTCGCAGAGTTCCGTCGATCAGGACTGGAGGAAGCCA
CGTTTTCAACAGATATATAGTCAACATGTGGCACTGTGCAGAATGGAGGGACTGCCGTACCCACCATGTG
AGAGACCATGGCCGTGTGTTCTCACCTGGGCTCCTGTGCCTCCTGCTTGTGGAGCCAGCAGGAACGAT
CTGCTCCTTCGGGTGCGGCTCACGTCAGCCAGGATGATGTGCTGATGCGCTGAAAGACGAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC202058 protein sequence
 Red=Cloning site Green=Tags(s)

MAHYPTRLTTRKTYSWVGRPLLDRKLHYQTYREMCVKTEGCSTEIHIQIGQFVLEIGDDDENPYVAKLLE
 LFEDDSPPPKRARVQWFVRFCEVPACKRHLLGRKPGAQEIFWYDYPACDSNINAETIIGLVRVIPLAP
 KDVVPTNLKNEKTLFVKLSWNEKKFRPLSSELF AELNKPQESAACKQKPVRAKSKSAESPSWTPAEHVAK
 RIESRHSASKSRQTPTHPLTPRARKRELGNLGNPQMSQQTSCASLDSPGRIKRVAFSEITSPSKRSQP
 DKLQTLSPALKAPEKTRTGLSYTEDDKASPEHRIILRTRIAASKTIDIREERTLTPISGGQRSSVPS
 VILKPENIKRDAKEAKAQNEATSTPHRIRRKSSVLTMNRIRQQRLFLGNSKSDQEEKEILPAAEISDSS
 SDEEEASTPPLPRRAPRTVSRNLRSSLKSSLHTLTKVPKSLKPRTPRCAAPQIRSRSLAAQEPASVLEE
 ARLRLHVSAPESLPCREQEFQDIYNFVESKLLDHTGGCMYISGVPGTGKTATVHEVIRCLQQAQANDV
 PPFQYIEVNGMKLTEPHQYVVQILQKLTGQKATANHAAELLAKQFCTRGSPQETTLLVDEL DLLWTHKQ
 DIMYNLFDWPTHKEARLVVLA IANTMDLPERIMMNRVSSRLGLTRMCFQPYTYSQLQILRSRLKHLKAF
 EDDAIQLVARKVAALSGDARRCLDICRRATEICEFSQQKPDSPGLVTIAHSMEAVDEMFSYITAIKNS
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 LLLRVRLNVSQDDVLYALKDE

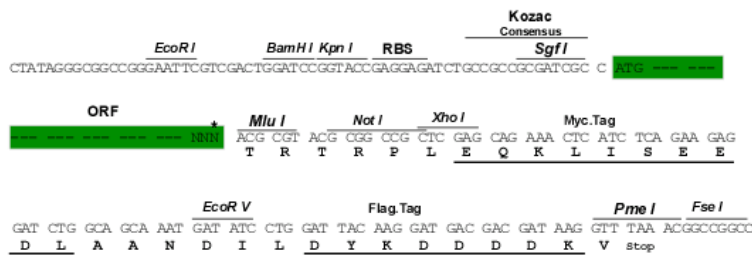
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6202_e08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:

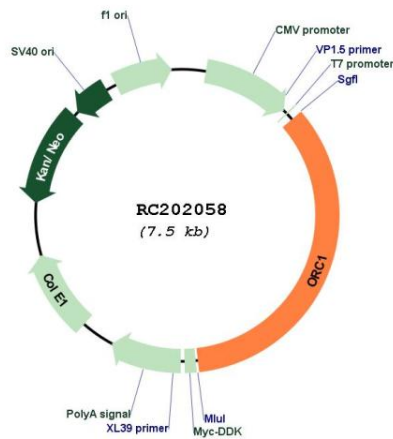


* The last codon before the Stop codon of the ORF

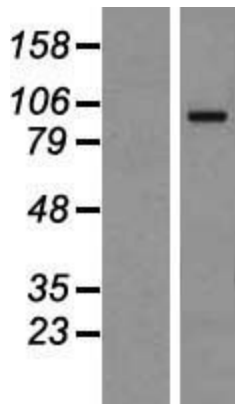
ACCN:	NM_004153
ORF Size:	2583 bp
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own 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:	<ol style="list-style-type: none">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_004153.4
RefSeq Size:	3192 bp
RefSeq ORF:	2586 bp
Locus ID:	4998
UniProt ID:	Q13415
Cytogenetics:	1p32.3
Protein Families:	Stem cell - Pluripotency
Protein Pathways:	Cell cycle
MW:	97.3 kDa

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 the largest subunit of the ORC complex. While other ORC subunits are stable throughout the cell cycle, the levels of this protein vary during the cell cycle, which has been shown to be controlled by ubiquitin-mediated proteolysis after initiation of DNA replication. This protein is found to be selectively phosphorylated during mitosis. It is also reported to interact with MYST histone acetyltransferase 2 (MyST2/HBO1), a protein involved in control of transcription silencing. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jun 2010]

Product images:


Circular map for RC202058



Western blot validation of overexpression lysate (Cat# [LY418180]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202058 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).