

Product datasheet for **RG234972**

ORC1 (NM_001190818) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ORC1 (NM_001190818) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ORC1
Synonyms:	HSORC1; ORC1L; PARC1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG234972 representing NM_001190818
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCACACTACCCACAAAGGCTGAAGACCAGAAAACTTATTCATGGGTGGCAGGCCCTTGTGGATC
 GAAAACCTGCACTACCAAACCTATAGAGAAATGTGTGTGAAAACAGAAGGTTGTTCCACCGAGATTCACAT
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 CTGCTCCTTCGGGTGCGGCTCAACGTCAGCCAGGATGATGTGCTGATGCGCTGAAAGACGAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG234972 representing NM_001190818
 Red=Cloning site Green=Tags(s)

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MAHYPTRLKTRKTYSWVGRPLLDRKLHYQTYREMCVKTEGCSTEIHIQIGQFVLEGGDDDENPYVAKLLE
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RIESRHSASKSRQTPHPLTPRARKRELEGNLGNPQMSQQTSCASLDSPGRIKRVAFSEITSPSKRSQP
DKLQTLSPALKAPEKTRETGLSYTEDDKKASPEHRIILRTRIAASKTIDIREERTLTPISGGQRSSVPS
VILKPENIKKRDAKEAKAQNEATSTPHRIRRKSSVLTMNRIRQQLRFLGNSKSDQEEKEILPAAEISDSS
SDEEEASTPPLPRRAPRTVSRNLRSSLKSSLHTLTKVPKSLKPRTPRCAAPQIRSRSLAAQEPASVLEE
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PPFYQIEVNGMKLTPHQVYVQILQKLTGQKATANHAAELLAKQFCTRGSPQETTLLVDEL DLLWTHKQ
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EDDAIQLVARKVAALSGDARRCLDICRRATEICEFSQQKPDSPGLVTIAHSMEAVDEMFSYITAIKNS
SVLEQSFLRAILAEFRSGL EEATFQQIYSQHVALCRMEGLPYPTMSETMAVCSHLGSCRLLLVEPSRND
LLLRVRLNVSQDDVLYALKDE
  
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TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI

ACCN:	NM_001190818
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_001190818.1 , NP_001177747.1
RefSeq Size:	3189 bp
RefSeq ORF:	2586 bp
Locus ID:	4998
UniProt ID:	Q13415
Cytogenetics:	1p32.3
Protein Families:	Stem cell - Pluripotency
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 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]