

## Product datasheet for **RC231425L4V**

### ORC1 (NM\_001190819) Human Tagged ORF Clone Lentiviral Particle

#### Product data:

|                           |  |
|---------------------------|--|
| Product Type:             | Lentiviral Particles   |
| Product Name:             | ORC1 (NM_001190819) Human Tagged ORF Clone Lentiviral Particle   |
| Symbol:                   | ORC1   |
| Synonyms:                 | HSORC1; ORC1L; PARC1   |
| Mammalian Cell Selection: | Puromycin  |
| Vector:                   | pLenti-C-mGFP-P2A-Puro (PS100093)  |
| Tag:                      | mGFP   |
| ACCN:                     | NM_001190819   |
| ORF Size:                 | 2568 bp  |
| ORF Nucleotide Sequence:  | The ORF insert of this clone is exactly the same as(RC231425).   |
| 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. <a href="#">More info</a> |
| OTI Annotation:           | This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.   |
| RefSeq:                   | <a href="#">NM_001190819.1</a> , <a href="#">NP_001177748.1</a>  |
| RefSeq ORF:               | 2571 bp  |
| Locus ID:                 | 4998   |
| UniProt ID:               | <a href="#">Q13415</a>   |
| Cytogenetics:             | 1p32.3   |
| Protein Families:         | Stem cell - Pluripotency   |
| Protein Pathways:         | Cell cycle   |
| MW:                       | 97.3 kDa   |



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**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]