

## **Product datasheet for RC206122L2**

MCM4 (NM\_182746) Human Tagged Lenti ORF Clone

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**OriGene Technologies, Inc.** 9620 Medical Center Drive, Ste 200

## Product data:

**Product Type:** Expression Plasmids

Product Name: MCM4 (NM 182746) Human Tagged Lenti ORF Clone

Tag: mGFP Symbol: MCM4

Synonyms: CDC21; CDC54; hCdc21; IMD54; NKCD; NKGCD; P1-CDC21

Mammalian Cell None

Selection:

Vector:pLenti-C-mGFP (PS100071)E. coli Selection:Chloramphenicol (34 ug/mL)

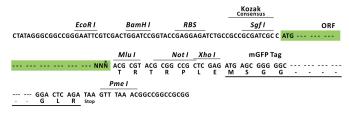
ORF Nucleotide The ORF insert of this clone is exactly the same as(RC206122).

Sequence:

**Restriction Sites:** Sgfl-Mlul

**Cloning Scheme:** 





st The last codon before the Stop codon of the ORF.

**ACCN:** NM\_182746

ORF Size: 2589 bp



## MCM4 (NM\_182746) Human Tagged Lenti ORF Clone - RC206122L2

**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:** <u>NM 182746.1</u>

RefSeq Size:4800 bpRefSeq ORF:2592 bpLocus ID:4173

 UniProt ID:
 P33991

 Cytogenetics:
 8q11.21

**Protein Families:** Stem cell - Pluripotency, Transcription Factors

**Protein Pathways:** Cell cycle, DNA replication

**MW:** 96.6 kDa

**Gene Summary:** The protein encoded by this gene is one of the highly conserved mini-chromosome

maintenance proteins (MCM) that are essential for the initiation of eukaryotic genome replication. The hexameric protein complex formed by MCM proteins is a key component of the pre-replication complex (pre\_RC) and may be involved in the formation of replication forks and in the recruitment of other DNA replication related proteins. The MCM complex consisting of this protein and MCM2, 6 and 7 proteins possesses DNA helicase activity, and may act as a DNA unwinding enzyme. The phosphorylation of this protein by CDC2 kinase reduces the DNA helicase activity and chromatin binding of the MCM complex. This gene is mapped to a region on the chromosome 8 head-to-head next to the PRKDC/DNA-PK, a DNA-activated protein kinase involved in the repair of DNA double-strand breaks. Alternatively spliced transcript variants encoding the same protein have been reported. [provided by

RefSeq, Jul 2008]