

## Product datasheet for RC211998L3

#### OriGene Technologies, Inc.

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### Oct4 (POU5F1) (NM 002701) Human Tagged Lenti ORF Clone

#### **Product data:**

**Product Type:** Expression Plasmids

**Product Name:** Oct4 (POU5F1) (NM\_002701) Human Tagged Lenti ORF Clone

Tag: Myc-DDK

Symbol: Oct4

Synonyms: Oct-3; Oct-4; OCT3; OCT4; OTF-3; OTF4

Mammalian Cell Puromycin

Selection:

**Vector:** pLenti-C-Myc-DDK-P2A-Puro (PS100092)

E. coli Selection: Chloramphenicol (34 ug/mL)

ORF Nucleotide The ORF insert of this clone is exactly the same as(RC211998).

Sequence:

Restriction Sites: Sgfl-Mlul

Cloning Scheme:





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

**ACCN:** NM\_002701 **ORF Size:** 1080 bp



#### Oct4 (POU5F1) (NM\_002701) Human Tagged Lenti ORF Clone - RC211998L3

**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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with

0.22um filter is required.

**RefSeq:** <u>NM 002701.3</u>

 RefSeq Size:
 1417 bp

 RefSeq ORF:
 1083 bp

 Locus ID:
 5460

 UniProt ID:
 Q01860

**Cytogenetics:** 6p21.33

**Protein Families:** Adult stem cells, Cancer stem cells, Embryonic stem cells, Induced pluripotent stem cells,

Stem cell - Pluripotency, Transcription Factors

MW: 38.4 kDa

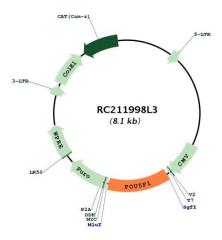
**Gene Summary:** This gene encodes a transcription factor containing a POU homeodomain that plays a key

role in embryonic development and stem cell pluripotency. Aberrant expression of this gene in adult tissues is associated with tumorigenesis. This gene can participate in a translocation with the Ewing's sarcoma gene on chromosome 21, which also leads to tumor formation. Alternative splicing, as well as usage of alternative AUG and non-AUG translation initiation codons, results in multiple isoforms. One of the AUG start codons is polymorphic in human populations. Related pseudogenes have been identified on chromosomes 1, 3, 8, 10, and 12.

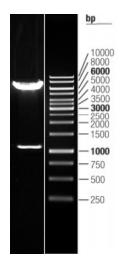
[provided by RefSeq, Oct 2013]



# **Product images:**



Circular map for RC211998L3



Double digestion of RC211998L3 using Sgfl and Mlul