

## Product datasheet for **RG236195**

### Oct4 (POU5F1) (NM\_001285986) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Oct4 (POU5F1) (NM\_001285986) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** POU5F1  
**Synonyms:** Oct-3; Oct-4; OCT3; OCT4; OTF-3; OTF3; OTF4  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG236195 representing NM\_001285986.  
Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTTGTGAAACCGTCAGAATTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGTGTAAGCTGCGGCCCTTGCTGCAGAAGTGGGTGGAGGAAGCTGACAACAATGAAATCTTCAGGAG
ATATGCAAAGCAGAAACCCTCGTGCAGGCCGAAAGAGAAAGCGAACCAGTATCGAGAACCAGTGAGA
GGCAACCTGGAGAATTTGTTCTGCAGTCCCCGAAACCCACACTGCAGCAGATCAGCCACATCGCCAG
CAGCTTGGGCTCGAGAAGGATGTGGTCCGAGTGTGGTTCTGTAAACGGCGCCAGAAGGGCAAGCGATCA
AGCAGCGACTATGCACAACGAGAGGATTTGAGGCTGCTGGGTCTCCTTTCTCAGGGGACCAGTGTCC
TTTCTCTGGCCCGGGCCCCATTTTGGTACCCAGGCTATGGGAGCCCTCACTCACTGCACTGTAC
TCCTCGGTCCCTTCCCTGAGGGGAAGCCTTTCCCCTGTCTCGTACCACACTCTGGGCTCTCCCATG
CATTCAAAC
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
```

**Protein Sequence:** >Peptide sequence encoded by RG236195  
Blue=ORF Red=Cloning site Green=Tag(s)

```
MCKLRPLLQKWVEEADNNENLQEICKAETLVQARKRKRTSIENRVGNLENLFLQCPKPTLQQISHIAQ
QLGLEKDVYRVWFCNRRQKGRSSDYAQREDFEAAGSPFSGGPVSFPLAPGPHFGTPGYGSPHFTALY
SSVPFPEGEAFPPVSVTTLGSPMHSN
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
MGYGFYHFGTYPYSGYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVDSHMHFKSAIHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
```

**Restriction Sites:** Sgfl-MluI

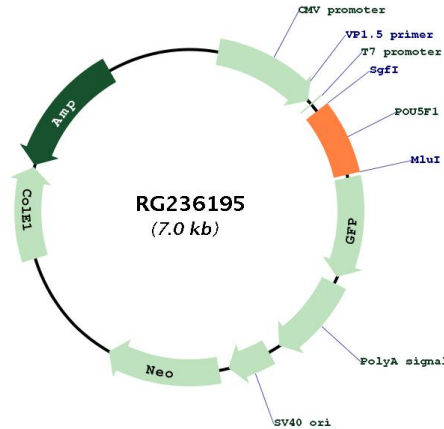


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Cloning Scheme:



Plasmid Map:



ACCN: NM\_001285986

ORF Size: 492 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.

<b>Components:</b>	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).
<b>RefSeq:</b>	<a href="#">NM_001285986.1</a> , <a href="#">NP_001272915.1</a>
<b>RefSeq Size:</b>	2300 bp
<b>RefSeq ORF:</b>	495 bp
<b>Locus ID:</b>	5460
<b>Cytogenetics:</b>	6p21.33
<b>Protein Families:</b>	Adult stem cells, Cancer stem cells, Embryonic stem cells, Induced pluripotent stem cells, Stem cell - Pluripotency, Transcription Factors
<b>MW:</b>	18.8 kDa
<b>Gene Summary:</b>	<p>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]</p>