

Product datasheet for RC229658

Oct4 (POU5F1) (NM_001173531) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Oct4 (POU5F1) (NM_001173531) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: POU5F1
Synonyms: Oct-3; Oct-4; OCT3; OCT4; OTF-3; OTF3; OTF4
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >RC229658 representing NM_001173531
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCGGGACACCTGGCTTCGGATTTTCGCTTCTCGCCCCCTCCAGGTGGTGGAGGTGATGGCCAGGGG
 GGCCGGAGCCGGCTGGTTGATCCTCGGACCTGGCTAAGCTTCCAAGGCCCTCTGGAGGGCCAGGAAT
 CGGGCCGGGGTTGGGCCAGGCTCTGAGGTGTGGGGATTCCCCATGCCCCCGCGTATGAGTTCTGT
 GGGGGATGGCGTACTGTGGGCCAGGTTGGAGTGGGGCTAGTCCCAAGCGGCTTGGAGACCTCTC
 AGCCTGAGGGCGAAGCAGGAGTCGGGTGGAGAGCAACTCCGATGGGGCTCCCCGGAGCCCTGCACCGT
 CACCCCTGGTGCCGTGAAGCTGGAGAAGGAGAAGCTGGAGCAAAACCCGGAGGAGTCCCAGGACATCAAA
 GCTCTGCAGAAAGAACTCGAGCAATTTGCCAAGCTCCTGAAGCAGAAGAGGATCACCTGGGATATACAC
 AGGCCGATGTGGGGCTCACCTGGGGTTCTATTTGGGAAGGTATTCAGCCAAACGACCATCTGCCGCTT
 TGAGGCTCTGCAGCTTAGCTTCAAGAACATGTGAAGCTGCGGCCCTTGTGCAGAAGTGGGTGGAGGAA
 GCTGACAACAATGAAAATCTTCAGGAGATATGCAAAGCAGAAACCCTCGTGCAGGCCCGAAAGAGAAAGC
 GAACCAGTATCGAGAACCGAGTGAGAGGCAACCTGGAGAATTTGTTCTGCAGTGCAGGCCGAAACCCACAT
 GCAGCAGATCAGCCACATCGCCAGCAGCTTGGGCTCGAGAAGGATGTGGTCCGAGTGTGGTTCTGTAAC
 CGGCGCCAGAAGGGCAAGCGATCAAGCAGCGACTATGCACAACGAGAGGATTTTGAAGCTGCTGGGTCTC
 CTTTCTCAGGGGACAGTGTCTTTCTCTGGCCCCAGGGCCCCATTTTGGTACCCAGGCTATGGGAG
 CCCTCACTTCACTGCACTGTACTCCTCGGTCCCTTTCCCTGAGGGGAAGCCTTTCCCTGCTCCGTC
 ACCACTCTGGGCTCTCCCATGCATTCAAAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC229658 representing NM_001173531
Red=Cloning site Green=Tags(s)

MAGHLASDFAFSPPPGGGGDGGPGPEPGWVDPRTWLSFQPPGGPGIGPGVGPSEVWGIPPCPPPYEFC
 GGMAYCGPQVGVGLVPQGGLETSQPEGEAGVGVESNSDGSPEPCTVTPGAVKLEKEKLEQNPEESQDIK
 ALQKELEQFAKLLKQKRITLGYTQADVGLTLGLVFGKVF SQTTCRFEALQLSFKNMCKLRPLLQKWVEE
 ADNENLQEICKAETLVQARKKRRTSIENRVRGNLENLFLQCPKPTLQQISHIAQQLGLEKDVVRVWFCN
 RRQKGKRSSDYAQREDFEAAGSPFSGGPVSFPLAPGPHFGTPGYSPPHFTALYSSVPFPEGEAFPPVSV
 TTLGSPMHSN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

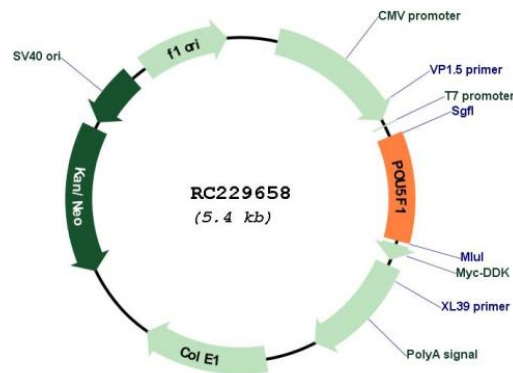
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001173531

| | |
|-------------------------------|--|
| ORF Size: | 1083 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_001173531.1 , NM_001173531.2 , NP_001167002.1 |
| RefSeq Size: | 1589 bp |
| RefSeq ORF: | 573 bp |
| Locus ID: | 5460 |
| Cytogenetics: | 6p21.33 |
| Protein Families: | Adult stem cells, Cancer stem cells, Embryonic stem cells, Induced pluripotent stem cells, Stem cell - Pluripotency, Transcription Factors |
| MW: | 38.6 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] |