

Product datasheet for **RG229658**

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:	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:	>RG229658 representing NM_001173531 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGGGACACCTGGCTTCGGATTTTCGCTTCTCGCCCCCTCCAGGTGGTGGAGGTGATGGCCAGGGG
GGCCGGAGCCGGCTGGTTGATCCTCGGACCTGGCTAAGCTTCCAAGGCCCTCTGGAGGGCCAGGAAT
CGGGCCGGGGTGGGCCAGGCTCTGAGGTGTGGGGATTCCCCATGCCCCCGCCGTATGAGTTCTGT
GGGGGATGGCGTACTGTGGCCCCAGGTTGGAGTGGGGCTAGTCCCCAAGCGGCTTGGAGACCTCTC
AGCCTGAGGGCGAAGCAGGAGTCGGGTGGAGAGCAACTCCGATGGGGCTCCCCGGAGCCCTGCACCGT
CACCCCTGGTGGCGTGAAGCTGGAGAAGGAGAAGCTGGAGCAAAACCCGGAGGAGTCCCAGGACATCAAA
GCTCTGCAGAAAGAACTCGAGCAATTTGCCAAGCTCCTGAAGCAGAAGAGGATCACCCCTGGGATATACAC
AGGCCGATGTGGGGCTCACCCCTGGGGTCTATTTGGGAAGGTATTCAGCCAAACGACCATCTGCCGCTT
TGAGGCTCTGCAGCTTAGCTTCAAGAACATGTGTAAGCTGCGGCCCTTGCTGCAGAAGTGGTGGAGGAA
GCTGACAACAATGAAAATCTTCAGGAGATATGCAAAGCAGAAACCCCTCGTGCAGGCCCGAAAAGAGAAAGC
GAACCAGTATCGAGAACCGAGTGAAGGCAACCTGGAGAATTTGTTCTGCAGTCCCCGAAACCCACACT
GCAGCAGATCAGCCACATCGCCCAGCAGCTTGGGCTCGAGAAGGATGTGGTCCGAGTGTGGTTCTGTAAC
CGGCGCCAGAAGGGCAAGCGATCAAGCAGCGACTATGCACAACGAGAGGATTTTGGGCTGCTGGGTCTC
CTTCTCAGGGGACCAGTGTCTTCTCTGGCCCCAGGGCCCAATTTGGTACCCAGGCTATGGGAG
CCCTCACTTCACTGCACTGTACTCCTCGTCCCTTCCCTGAGGGGAAGCCTTCCCCCTGTCTCCGTC
ACCACTCTGGGCTCTCCCATGCATTCAAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG229658 representing NM_001173531
 Red=Cloning site Green=Tags(s)

MAGHLASDFAFSPPPGGGGDGGPGPEPGWVDPRTWLSFQPPGGPGIGPGVGPSEVWGIPPCPPPYEFC
 GGMAYCGPQVGVGLVPQGGLETSQPEGEAGVGVESNSDASPEPCTVTPGAVKLEKEKLEQNPEESQDIK
 ALQKELEQFAKLLKQKRITLGYTQADVGLTLGVLFGKVFSTTTICRFEALQLSFKNMCKLRPLLQKWVEE
 ADNENLQEICKAETLVQARKKRRTSIENRVRGNLENLFLQCPKPTLQQISHIAQQLGLEKDVVRVWFCN
 RRQKGRKSSSDYAQRDFEAAGSPFSGGPVSVFPLAPGPHFGTPGYPGPHFTALYSSVPFPEGEAFPPVSV
 TTLGSPMHSN

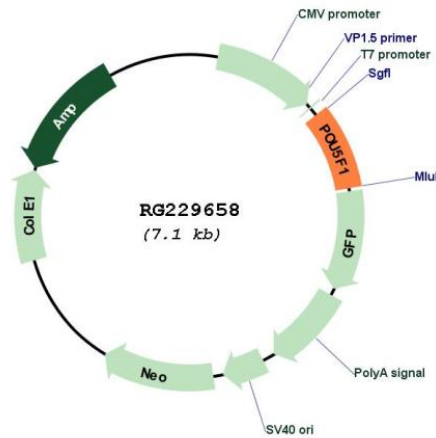
TRTRPLE - GFP Tag - V

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 , 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
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]