

Product datasheet for **RG237037**

Oct4 (POU5F1) (NM_001285987) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Oct4 (POU5F1) (NM_001285987) 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:	>RG237037 representing NM_001285987. Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTGTAAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGCACCTTCTACAGACTATTCCTTGGGGCCACACGTAGGTTCTTGAATCCCGAATGGAAAGGGGAGATT
GATAATTGGTGTGTTTATGTTCTTACAAGTCTTCTGCCTTTTAAAATCCAGTCCCAGGACATCAAAGCT
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GCCGATGTGGGGCTCACCTGGGGTCTATTTGGGAAGGTATTCAGCCAAACGACCATCTGCCGTTT
GAGGCTCTGCAGCTTAGCTTCAAGAACATGTGTAAGCTGCGGCCCTTGCTGCAGAAGTGGTGGAGGAA
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CTGCAGCAGATCAGCCACATCGCCAGCAGCTTGGGCTCGAGAAGGATGTGGTCCGAGTGTGGTTCTGT
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TCTCCTTTCTCAGGGGACCAAGTGTCTTTCTCTGGCCCCAGGGCCCCATTTTGGTACCCAGGCTAT
GGGAGCCCTCACTTCACTGCACTGTACTCCTCGGTCCCTTTCCCTGAGGGGAAGCCTTTCCCCCTGTC
TCCGTCAACACTCTGGGCTCTCCCATGCATTCAAAC
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
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Protein Sequence: >Peptide sequence encoded by RG237037
 Blue=ORF Red=Cloning site Green=Tag(s)

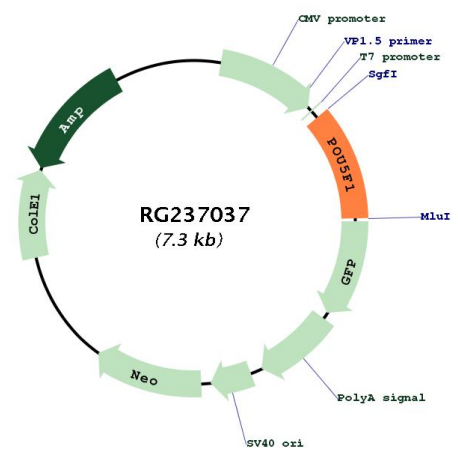
MHFYRLF LGATRRFLNPEWKGEIDNWCYVYVLTSLLPFKIQSQDIKALQKELEQF AKLLKQKRITLGYTQ
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 RTSIENRVRGNLENLFLQCPKPTLQQISHIAQQLGLEKDVVRVWF CNRRQKGRSSSDYAQREDFEAG
 SPFSGGPVSFPLAPGPHFGTPGYGSPHF TALYSSVPPPEGEAFPPVSVTTLGSPMHSN
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMKSTKGALTFSPYLLSHV
 MGYGFYHFGTYPSGYENPFLHAINNGGYTNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
 SVIFTDKIIRS NATVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVD SHMHFKSAIHPSILQNGGPMFA
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001285987

ORF Size:	795 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).
RefSeq:	NM_001285987.1 , NP_001272916.1
RefSeq Size:	2075 bp
RefSeq ORF:	798 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:	30.1 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]