

Product datasheet for **SC308101**

Oct4 (POU5F1) (NM_203289) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Oct4 (POU5F1) (NM_203289) Human Untagged Clone
Tag:	Tag Free
Symbol:	Oct4
Synonyms:	Oct-3; Oct-4; OCT3; OCT4; OTF-3; OTF3; OTF4
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC308101 sequence for NM_203289 edited (data generated by NextGen Sequencing) CTGGGGTTCTATTTGGGAAGGTATTCAGCCAAACGACCATCTGCCGCTTTGAGGCTCTG CAGCTTAGCTTCAAGAACATGTGTAAGCTGCGGCCCTTGCTGCAGAAGTGGGTGGAGGAA GCTGACAACAATGAAAATCTTCAGGAGATATGCAAAGCAGAAACCTCGTGCAGGCCCGA AAGAGAAAGCGAACAGTATCGAGAACCGAGTGAGAGGCAACCTGGAGAATTTGTTCTCTG CAGTGCCCGAAACCGACTGCAGCAGATCAGCCACATCGCCAGCAGCTTGGGCTCGAG AAGGATGTGGTCCGAGTGTGGTTCTGTAACCGGCCGAGAAAGGGCAAGCGATCAAGCAGC GACTATGCACAACGAGAGGATTTTGAGGCTGCTGGGTCTCCTTTCTCAGGGGGACCAGTG TCCTTTCTCTGGCCCCAGGGCCCCATTTTGGTACCCAGGCTATGGGAGCCCTCACTTC ACTGCACTGTACTCCTCGGTCCCTTTCCCTGAGGGGGAAGCCTTTCCCCCTGTCTCCGTC ACCACTCTGGGCTCTCCCATGCATTCAAACTGA Clone variation with respect to NM_203289.4 255 c=>g
Restriction Sites:	Please inquire
ACCN:	NM_203289
Insert Size:	1200 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	The ORF of this clone is found to be a perfect match to NM_203289.2.



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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:	<u>NM_203289.2, NP_976034.2</u>
RefSeq Size:	1177 bp
RefSeq ORF:	495 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:	<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> <p>Transcript Variant: This variant (2, also known as OCT4B) differs in the 5' UTR, lacks a portion of the 5' coding region, and initiates translation at a downstream in-frame non-AUG (CUG) start codon, compared to variant 1. The resulting isoform (2, also known as OCT4B-190) is shorter at the N-terminus, compared to isoform 1. Variants 2 and 3 encode the same isoform (2). This variant may encode additional isoforms through the use of an alternative downstream AUG start codon, as well as an alternative upstream AUG start codon, which is polymorphic in human populations (AGG allele represented in this RefSeq; see rs3130932). Use of alternate start codons and the non-AUG start codon is described in PMID:19489092.</p>