

## Product datasheet for **RN201319**

### Leo1 (NM\_001005548) Rat Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Leo1 (NM_001005548) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Leo1
Synonyms:	MGC95290
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**Fully Sequenced ORF:** >RN201319 representing NM\_001005548  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCGGACATGGAGACCTCTTCGGGAGCGAAGCTGAGAGCGAGGCCGAGCGCAAAGATTCCGATTCTG  
 GGTCTGACTCAGACTCTGACCAGGACAACGGTGCTTCTGGTAGCAATGCCTCTGGCAGCGAAAGTGATCA  
 AGATGAAAGGGGCGATTCCGGGAGCCAGTAACAAGGAAGTGTGGAGATGACAGTGAGGAGGAGGGG  
 GCCCTCATCACAGTGGCAGCGACAATCACTCTGAACAGTCAGACAATAGGTGAGAGGCTCCGAGGAGA  
 GATCTGACCACGAGGATAATGAGCCCTCTGACGTGGATCAGCACAGTGGCTCTGAAGCCACAACGATGA  
 CGACGACGATGATGATGACGAGGACGATGATGATGAGGGCCACAGGTGAGATGAAGGGAGCCATCACTCA  
 GAGGCAGAAGTTCTGAAAAAGCACAGTCAGATGATGAGAAATGGGACGGAGAGGATAAAAGCGACCAGT  
 CAGACGATGACGAAAAGCTGCAGAACTCTGATGATGAGGAGCGGGAACAAGGGTCCGACGATGAAAAGCT  
 GCAGAACTCTGCCGATGAAGAGGAGAAAATGCAGAACACAGATGATGAGGACCGGGCCAGCTTTCTGAT  
 GATGACAGACAACAGCTGTCTGAGGAGGAAAAGGGGAACCTCTGATGATGAGCGTCCAGCAGCTTCTGATA  
 ACGATGAGGAGAAGCAGAATTCAGACGATGAGGACCGGCCACAGGTGTCCGATGAAGAGAAAATGAAAA  
 CTCGGATGATGAAAGGCCACAGGTCTCCGATGAAGATCGAAGGCACTCAGACGATGAGGAGGAGCAGGAC  
 CAGAAGTCGGAATCTGCAAGAGGCGAGTACAGTGGAGGCAAGTTTTACGAATGAAGCGCAAGAACGCGA  
 TTCCATCTGACTCGGAAGTGACAGCGACACCGAGGTGCCAAAGATAAATGGAACCATGGACTTGT  
 CGGAGGTGCAGATGACATATCTTCAGGGAGTGACGGAGAGGACAAGCCCTACTCCAGGACAGCCTGTG  
 GATGAAAATGGCTTCCCTCAAGATCAGCAGGAGGAGGAGCCGATACCCGAGACCAGAATAGAAGTGGAGA  
 TTCCCAAAGTGAACACAGACTTGGGCAATGACTTATATTTTGTAAACTGCCCACTTCTCAGCGTAGA  
 GCCCAGGCCTTTTGCCTCAGTATTATGAAGATGAATTTGAAGATGAGGAGATGCTGGATGAAGAAGGG  
 AGAACCGGCTAAAAGTGAAGGTAGAAAACACTATAAGATGGAGGATGCGCAGAGATGAGGAAGGAAACG  
 AGATTAAGAAAGCAACGCCGCATCGTCAAGTGGTGGACGGAAGCATGTCCCTGCACCTAGGGAATGA  
 GGTGTTTGACGTCTACAAAGCCCACTGCAGGGCGACCACAACCCTTTTCATCAGACAAGGACTGAGG  
 CTGCAGGGACAGGCCGTCTTAAAACGAAGCTCACCTTCAGGCCCACTCTACAGACAGTCCACACACA  
 GGAAGATGACCCTGTCACTGGCAGATCGATGTTCAAAGACACAGAAGATCAGAATCTTACCAATGGCAGG  
 TCGTGACCCTGAGTGCCAGCGCACAGAGATGATTAAGAAAGAAGAAGACGCCTGAGGGCCTCCATCAGG  
 AGGGAGTCGACGAGCGCGGATGAGAGAGAAGCAGCACCAGCGGGGCTGAGTGCCAGCTACCTGGAGC  
 CTGATCGCTACGATGAGGAGGAGGAAGCGAGGAGTCTGTGAGCCTGGCTGCCATTAAAAACCGCTACAA  
 AGGAGGATCCGCGAGGAACGGGCCAGAATCTACTCTCAGACAGCGACGAGGGCTCGGAAGAAGACAAA  
 GCTCAGAGGCTGCTCAAAGCAAAGAAGCTCAACAGTGACGAGGAAGGTGAGTCTTCTGGGAAGAGGAAA  
 CAGAGGACGATGACAAGGCCAATAAAAAGCATAAAGATATGTGATCAGCGATGAAGAGGAGGAGGAGGA  
 T**GACTGA**

**ACGCGT**ACGCGGCCGCTCGAGCAGAAAACCTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-MluI  
**ACCN:** NM\_001005548  
**Insert Size:** 2037 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).

<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>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u><a href="#">NM_001005548.1</a></u> , <u><a href="#">NP_001005548.1</a></u>
<b>RefSeq Size:</b>	2161 bp
<b>RefSeq ORF:</b>	2037 bp
<b>Locus ID:</b>	300837
<b>UniProt ID:</b>	<u><a href="#">Q641X2</a></u>
<b>Cytogenetics:</b>	8q24
<b>Gene Summary:</b>	Component of the PAF1 complex (PAF1C) which has multiple functions during transcription by RNA polymerase II and is implicated in regulation of development and maintenance of embryonic stem cell pluripotency. PAF1C associates with RNA polymerase II through interaction with POLR2A CTD non-phosphorylated and 'Ser-2'- and 'Ser-5'-phosphorylated forms and is involved in transcriptional elongation, acting both independently and synergistically with TCEA1 and in cooperation with the DSIF complex and HTATSF1. PAF1C is required for transcription of Hox and Wnt target genes. PAF1C is involved in hematopoiesis and stimulates transcriptional activity of KMT2A/MLL1. PAF1C is involved in histone modifications such as ubiquitination of histone H2B and methylation on histone H3 'Lys-4' (H3K4me3). PAF1C recruits the RNF20/40 E3 ubiquitin-protein ligase complex and the E2 enzyme UBE2A or UBE2B to chromatin which mediate monoubiquitination of 'Lys-120' of histone H2B (H2BK120ub1); UB2A/B-mediated H2B ubiquitination is proposed to be coupled to transcription. PAF1C is involved in mRNA 3' end formation probably through association with cleavage and poly(A) factors. Involved in polyadenylation of mRNA precursors. Connects PAF1C to Wnt signaling (By similarity).[UniProtKB/Swiss-Prot Function]