

Product datasheet for **RN209855**

Paf1 (NM_001024898) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Paf1 (NM_001024898) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Paf1
Synonyms:	RGD1306219
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >RN209855 representing NM_001024898
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCGCCACCATCCAGACCCAGGCACAGCGGAAGATGGCCATAGGCCAATCCCACCGGACCTTGC
 CTGAGAGGTCTGGAGTGGTCTGCCGAGTCAAGTACTGCAACAGCCTTCTGACATCCCATTGACCCCAA
 ATTCATCACCTACCCCTTCGACCAGAACAGTTTGTTCAGTACAAAGCAACCTCCTTGGAGAAAACAGCAT
 AAACATGACCTCCTGACTGAACCAGATCTGGGGTACCATCGATCTCATCAACCCTGACACCTACCGCA
 TTGATCCCAATGTTCTTCTGGATCCGGCTGATGAAAAGCTTTTGGAAAGAGGAGATTCAGGCTCCCACCAG
 CTCCAAGAGATCCAGCAGCATGCGAAGGTGGTCCGTTGCGTAAGACAGAGTATATTTCCACTGAG
 TTCAACAGATATGGCATCTCAATGAGAAGCCTGAGGTCAAGATTGGGGTTTCTGTGAAACAGCAGTTCA
 CAGAGGAAGAAATACAAAGACAGGGACAGCCAGATCACAGCCATTGAGAAGACTTTTGAAGATGCCCA
 GAAATCGATCTCCAGCATTACAGCAAGCCCGAGTGACACCAGTGGAGGTCATGCCTGTCTTCCAGAC
 TTTAAGATGTGGATCAACCCATGTGCTCAGGTCATTTTGGATTACAGCCAGCCCAAGGACACAAGTG
 GAGCAGCTGCATTAGAGATGATGTCTCAGGCCATGATCAGGGCATGATGGATGAGGAAGGGAACCAAGTT
 TGTGGCTTATTTCTGCCTGTGGAAGAGACACTAAAAACGAAAGCGGGACCAAGAGGAAGAGATGGAC
 TATGCACCAGATGATGTGTATGACTACAAGATTGCTCGAGAATATAACTGGAATGTGAAGAAACAGGCCA
 GTAAGGGTACGAGGAAAACACTTCTTCATCTCAGAGAGGGTATGGTGTCTACTACAATGAGCTAGA
 GACCAGGTCCGTCTCAGTAAGCGCCGGCCAAGGCTGGGGTTCAGTCGGTACCAATGCCTTGTGTG
 GTCAAACACCGTGACATGAATGAGAAGGAATTAGAAGCCAGGAGGCACGCAAGGCCAGTTGGAAAACC
 ACGAACCAGAGGAAGAGGAGGAGGAGATGGAGGCTGAAGAGAAAGAAGCTGGAGGCTCAGATGAGGA
 ACATGAGAAGGGCAGCAGCAGCGAAAAGGAAGGCAGCGAGGATGAGCGCTCTGGCAGTGAGAGTGATCGA
 GAGGAGGGTGACAGGGATGAGGCAAGTGACAAGAGTGGCAGCGGTGAGGATGAGAGCAGCGAGGACGAAG
 CACGTGCTGCCCGGGACAAAGAGGAGATTTTCGGTAGTGATGCTGATTGAGAAGATGATGCTGACTCTGA
 TGATGAAGACAGAGGGCAGGCCACAGGGGAGTATAATGACTCGGACAGTGGCAGTGATGGTGGTGGC
 CAGCGGAGCCGCAGCCAGAGCAGGAGTCGTAGCCGGAGTGCCAGCCCTTCCCCAGTGGTGTGAACACT
 CAGCTCAGGAAGATGGCAGTGAAGCTGCAGCTTCTGATCCAGTGAAGGCTGACAGTGACAGTGAC**TGA**

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM_001024898
- Insert Size:** 1608 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).
- 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:

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_001024898.1](#), [NP_001020069.1](#)

RefSeq Size: 1973 bp

RefSeq ORF: 1608 bp

Locus ID: 361531

UniProt ID: [Q4V886](#)

Cytogenetics: 1q21

Gene Summary: 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. Connects PAF1C with the RNF20/40 E3 ubiquitin-protein ligase complex. Involved in polyadenylation of mRNA precursors (By similarity). [UniProtKB/Swiss-Prot Function]