OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RR209855

Paf1 (NM_001024898) Rat Tagged ORF Clone

Product data:

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

View online »

ORF Nucleotide Sequence:

>RR209855 representing NM_001024898
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCGCCCACCATCCAGACCCAGGCACAGCGGGAAGATGGCCATAGGCCCAATTCCCACCGGACCTTGC
CTGAGAGGTCTGGAGTGGTCTGCCGAGTCAAGTACTGCAACAGCCTTCCTGACATCCCATTTGACCCCAA
ATTCATCACCTACCCCTTCGACCAGAACAGGTTTGTTCAGTACAAAGCAACCTCCTTGGAGAAACAGCAT
AAACATGACCTCCTGACTGAACCAGATCTGGGGGTCACCATCGATCTCATCAACCCTGACACCTACCGCA
TTGATCCCAATGTTCTTCTGGATCCGGCTGATGAAAAGCTTTTGGAAGAGGAGATTCAGGCTCCCACCAG
CTCCAAGAGATCCCAGCAGCATGCGAAGGTGGTGCCGTGGATGCGTAAGACAGAGTATATTTCCACTGAG
TTCAACAGATATGGCATCTCCAATGAGAAGCCTGAGGTCAAGATTGGGGTTTCTGTGAAACAGCAGTTCA
CAGAGGAAGAAATATACAAAGACAGGGACAGCCAGATCACAGCCATTGAGAAGACTTTTGAAGATGCCCA
GAAATCGATCTCCCAGCATTACAGCAAGCCCCGAGTGACACCAGTGGAGGTCATGCCTGTCTTCCCAGAC
TTTAAGATGTGGATCAACCCATGTGCTCAGGTCATTTTTGATTCAGACCCAGCCCCCAAGGACACAAGTG
GAGCAGCTGCATTAGAGATGATGTCTCAGGCCATGATCAGGGGCATGATGGATGAGGAAGGGAACCAGTT
TGTGGCTTATTTTCTGCCTGTGGAAGAGACACTAAAAAAACGAAAGCGGGACCAAGAGGAAGAGATGGAC
TATGCACCAGATGATGTGTATGACTACAAGATTGCTCGAGAATATAACTGGAATGTGAAGAACAAGGCCA
GTAAGGGCTACGAGGAAAACTACTTCTTCATCTTCAGAGAGGGTGATGGTGTCTACTACAATGAGCTAGA
GACCAGGGTCCGTCTCAGTAAGCGCCGGGCCAAGGCTGGGGTTCAGTCGGGTACCAATGCCTTGCTTGTG
GTCAAACACCGTGACATGAATGAGAAGGAATTAGAAGCCCAGGAGGCACGCAAGGCCCAGTTGGAAAACC
ACGAACCAGAGGAAGAGGAGGAGGAGGAGATGGAGGCTGAAGAGAAAGAAGCTGGAGGCTCAGATGAGGA
ACATGAGAAGGGCAGCAGCAGCGAAAAGGAAGGCAGCGAGGATGAGCGCTCTGGCAGTGAGAGTGATCGA
GAGGAGGGTGACAGGGATGAGGCAAGTGACAAGAGTGGCAGCGGTGAGGATGAGAGCAGCGAGGACGAAG
CACGTGCTGCCCGGGACAAAGAGGAGATTTTCGGTAGTGATGCTGATTCAGAAGATGATGCTGACTCTGA
TGATGAAGACAGAGGGCAGGCCCACAGGGGCAGTGATAATGACTCGGACAGTGGCAGTGATGGTGGTGGC
CAGCGGAGCCGCAGCCAGAGCAGGAGTCGTAGCCGGAGTGCCAGCCCCTTCCCCAGTGGTAGTGAACACT
CAGCTCAGGAAGATGGCAGTGAAGCTGCAGCTTCTGATTCCAGTGAGGCTGACAGTGACAGTGAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

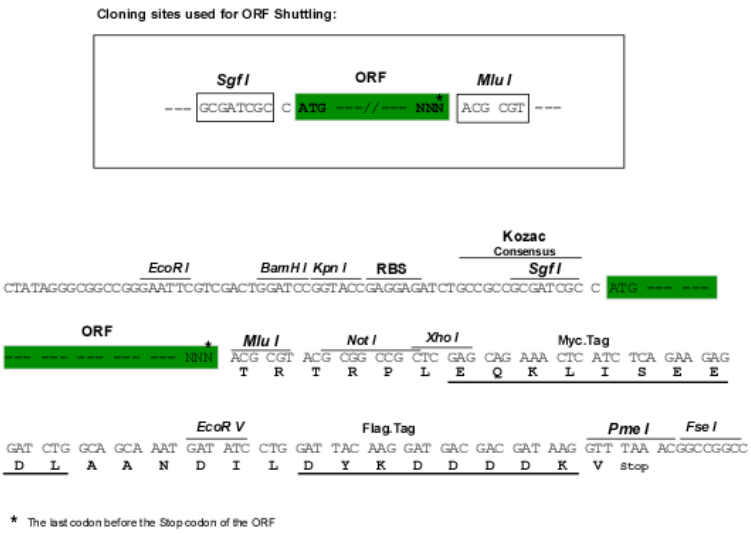
>RR209855 representing NM_001024898
Red=Cloning site Green=Tags(s)

MAPTIQTQAQREDGHRPNSHRTLPERSGVVCRVKYCNSLPDIPFDPKFITYPFDQNRFVQYKATSLEKQH
KHDLLTEPDLGVTIDLINPDTYRIDPNVLLDPADEKLLEEEIQAPTSSKRSQQHAKVVPWMRKTEYISTE
FNRYGISNEKPEVKIGVSVKQQFTEEEIYKDRDSQITAIEKTFEDAQKSISQHYSKPRVTPVEVMPVFPD
FKMWINPCAQVIFDSDPAPKDTSGAAALEMMSQAMIRGMMDEEGNQFVAYFLPVEETLKKRKRDQEEEMD
YAPDDVYDYKIAREYNWNVKNKASKGYEENYFFIFREGDGVYYNELETRVRLSKRRAKAGVQSGTNALLV
VKHRDMNEKELEAQEARKAQLENHEPEEEEEEEMEAEEKEAGGSDEEHEKGSSSEKEGSEDERSGSESDR
EEGDRDEASDKSGSGEDESSEDEARAARDKEEIFGSDADSEDDADSDDEDRGQAHRGSDNDSDSGSDGGG
QRSRSQSRSRSRSASPFPSGSEHSAQEDGSEAAASDSSEADSDSD

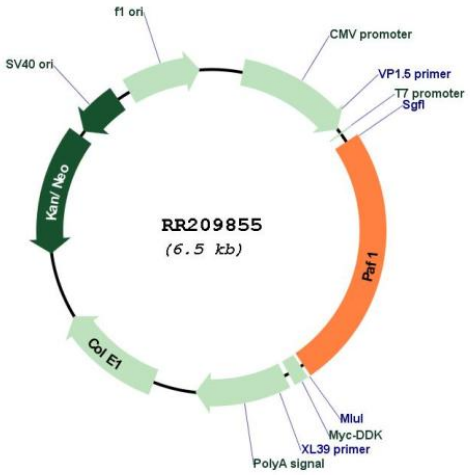
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:	NM_001024898
ORF Size:	1605 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:	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
MW:	60.5 kDa

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 indepentently 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]