

Product datasheet for **MC221020**

Rtf1 (NM_030112) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Rtf1 (NM_030112) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Rtf1
Synonyms:	2900005O08Rik; 6530416A09Rik; AI853581; AU043144; AW553985; cbp82; Gtl7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >MC221020 representing NM_030112
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCGCGGTGCCTTTGTGTGGTCTGAGCGCGCGCGGTGGCGCGCGCGGTGGCGCGCGCGCAGTGGCGG
 TCCCACTGGCAGGCGGGCAAGAGGGGAGTCAGGGCGGCGTCCGGCGTGAAGCCGGGGACCACCATGGT
 AAAGAAGCGAAAAGGCCGTGTCGTGATCGACTCGGATACGGAAGACAGCGCAGTGACGAGAACCTGGAT
 CAGGAGCTCTTGTCCCTGGCGAAAACGGAAGCGCAGTACTCCGAGGAGAAGGAGCCTCCTGTGAGTCAGC
 CTGCGACCTCATCAGATTCAGAGACCTCCGACAGTATGATGAGTGGACATTTGGGAGCAATAAAAAATA
 GAAGAAAGGAAAAACCAGAAAAGTAGAGAAGAAAGGAGCCATGAAGAAGCAAGCCAAACAAAGCTGCCTCC
 TCGGGCAGCTCAGACAGAGACAGCTCAGCTGAGAGCTCTGCCCTGAGGAAGGTGAAGTGCAGATTCTG
 AGAGCAGCAGCTCCTCTCCAGTTCAGATTCACTCCTCGTCAGAAGATGAAGAATTCATGATGGCTA
 TGGAGAGGATCTTATGGGAGATGAGGAAGATAGGGCCCGACTGGAGCAGATGACGGAGAAGGAGAGGGAG
 CAGGAGCTCTTCAACCGCATAGAGAAGAGAGAGGTGTTGAAAAGAAGATTTGAAATTAAGAAAAACTAA
 AACAGCCAAAAAGAAAGAGAAGAAAAAGAAAAAGAAAAAGCAGGAAGAAGAACAGAAAAAGAAAGCT
 GACACAGATTCAGGAATCTCAGGTTACTTCCCACAATAAAGAACGGCGTCCAAGCGGGATGAAAACTA
 GATAAGAAATCTCAAGCCATGGAGGAGCTAAAAGCAGAGCGAGAAAAACGGAAGAACAGAACAGCTGAGC
 TCCTCGCCAAAAACAGCCATTGAAAACAGTGAAGTCTACTCTGACGATGAGGAGGAGGAAGATGATGA
 CAAGTCCAGTGAGAAATCGGACCGCTCATCCCGGACATCATCTGTGATGAAGAGGAAGAAAGAAAGAA
 ATCCCTCCAAAATCACAGCCAGTCTCATTACCCGAGGAAGTGAATCGGGTTCGGTTATCACGGCATAAGC
 TAGAGCGCTGGTGTACATGCCCTCTTTGCTAAAAGTGCACAGGATGTTTTGTACGGATTGGCATTGG
 AAACCACAATAGCAAGCCAGTTTACCGGTGGCTGAGATCACGGGTGTTGTGAAAAGTCCCAAAGTTTAC
 CAGCTGGGTGGCACCAGAACAAATAAAGGGCTCCAGCTACGGCATGGCAATGACCAGCGAGTGTCCGCC
 TAGAGTTTGTGTCCAACCAAGAATTCAGTAAAAGTGAATTCATGAAGTGGAAAGAAGCGATGTTTTCTGC
 TGGCATGCAGTTGCCACACTAGATGAAATCAATAAAAAGGAATTATCTATTAAGGAAGCTCAATTAT
 AAATTCATGATCAGGACATTGAGGAGATTGTAAGAGAGAAGGAAAGGTTGAGAAAAGCCCAACAACT
 ATGCTATGAAGAAGACTCAGCTGCTAAAGGAGAAGGCTATGGCTGAGGACCTGGGAGATCAGGACAAAGC
 CAAACAAATCAAAGACCAGCTAAATGAGCTAGAGGAGCGAGCAGAGGCCCTGGACCGCCAGCGGACCAAG
 AACATATCTGCTATCAGCTACATCAACCAGCGGAATCGGGAGTGAATATTGTGGAGTCTGAGAAGGCTC
 TGGTGGCTGAAAAGTCACAACATGAGAAACCAACAGATGGACCCCTTACCAGCGCGCAGTCAAACCCAC
 CATCGTCTCAATTCCAGGGATCCAGCTGTTCCAGGCTGCCATTTTGGCCAGCTCAATGCAAAAATACGGT
 TCTGGGGTATTACCAGATGCTCCAAAGGAAATGAGCAAGGGTCAAGGAAAGGATAAAGATTTGAATTCTA
 AGACAGCCAGTGACCTCTCGGAAGACCTGTTCAAAGTGCATGACTTTGACGTGAAGATTGACTTACAGGT
 TCCAAGCTCAGAGTCAAAGCTTTGGCCATTACCTCAAAGCCCCACCAGCCAAGGACGGAGCTCCGAGG
 AGATCTCTGAACCTAGAAGACTACAAAAACGACGGGGCTTATT**TGA**

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_030112
Insert Size: 2148 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:	<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:	NM_030112.2 , NP_084388.2
RefSeq Size:	4680 bp
RefSeq ORF:	2148 bp
Locus ID:	76246
UniProt ID:	A2AQ19
Cytogenetics:	2 E5
Gene Summary:	<p>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. Binds single-stranded DNA (By similarity). Required for maximal induction of heat-shock genes. Required for the trimethylation of histone H3 'Lys-4' (H3K4me3) on genes involved in stem cell pluripotency; this function is synergistic with CXXC1 indicative for an involvement of a SET1 complex.[UniProtKB/Swiss-Prot Function]</p>