

## Product datasheet for **RC238915**

### AF9 (MLLT3) (NM\_001286691) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	AF9 (MLLT3) (NM_001286691) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	AF9
Synonyms:	AF9; YEATS3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC238915 representing NM\_001286691  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTGTGCCGTGCAGGTGAAGCTGGAGCTGGGGCACCCGCCAGGTGAGGAAAAACCCACCGTGGAGG  
 GCTTCACCCACGACTGGATGGTGTTCGTACGCGGTCCGGAGCACAGTAACATACAGCACTTTGTGGAGAA  
 AGTCGTCTTCCACTTGCACGAAAGCTTTCTAGGCCAAAAAGAGTGTGCAAAGATCCACCTTACAAAGTA  
 GAAGAATCTGGGTATGCTGGTTTCATTTTGCCAATTGAAGTTATTTTAAAAACAAGGAAGAACCTAGGA  
 AAGTCCGCTTTGATTATGACTTATTCTGCATCTTGAAGGCCATCCACCAGTGAATCACCTCCGCTGTGA  
 AAAGCTAACTTTCAACAACCCACAGAGGACTTTAGGAGAAAGTTGCTGAAGGCAGGAGGGGACCCTAAT  
 AGGAGTATTCATACCAGCAGCAGCAGCAGCAGCAGCAGTGCAGCAGCAGCAGCAGCAGCAGCAGCAGCA  
 GTAGCAGCAGCAGCAGCAGCAGCAGCAGCAGTGCAGCAGCAGTGCAGCAGCAGCAGCAGCAGCAGTAG  
 TACCAGTTTTTCAAAGCCTCACAAATTAATGAAGGAGCACAAGGAAAAACCTTCTAAAGACTCCAGAGAA  
 CATAAAAGTGCCTTCAAAGAACCTTCCAGGGATACAACAAATCTTCAAAGAATCCTCTAAGAAACCCA  
 AAGAAAATAAACCACTGAAAGAAGAGAAAATAGTTCCTAAGATGGCCTTCAAGGAACCTAAACCCATGTC  
 AAAAGAGCCAAAACAGATAGTAACTTACTCACCATCACCAGTGGACAAGATAAGAAGGCTCCTAGTAAA  
 AGGCCGCCATTTAGATTCTGAAGAACTCTCAGCCAAAAAAGGAAAAAGAGTAGCTCAGAGGCTTTAT  
 TAAAAAGTTTTCTAGCGCACCACCCTGATACTCACTTGTCTGCTGACAAAAACAGATAAAAGATAA  
 ATCTCATGTCAAGATGGGAAAGGTCAAAATTGAAAGTGAGACATCAGAGAAGAAGAAATCAACGTTACCG  
 CCATTTGATGATATTGTGGATCCCAATGATTGAGATGTGGAGGAGAATATATCCTCTAAATCTGATTCTG  
 AACCAACCAGTCCCTGCCAGCTCCAGCTCCAGCTCCAGCTTACACCATCCAGACCAGGCAACA  
 AGGTCCTTTGAGGTCTATAATGAAAGATCTGCATTCTGATGACAATGAGGAGGAATCAGATGAAGTGGAG  
 GATAACGACAATGACTCTGAAATGGAGAGGCTGTAAATAGAGGAGGAGCCGAAGTCGAGAGTTAGCT  
 TAAGTGTGGCAGCGATAGTGAAGCAGTTCTGCTTCTTCAACCCATACATCACGAACCTCCACCACCTT  
 ACTAAAAACCAACAACAACCAGATTCTTGAAGTAAAAGTCCAATAAAGCAAAGCAAATCAGATAAGCAA  
 ATAAAGAATGGTGAATGTGACAAGGCATACCTAGATGAAGTGGTAGAGCTTACAGAAAGGTTAATGACAT  
 TGAGAGAAAGACACATTCTGCAGCAGATCGTGAACCTTATAGAAGAACTGGACACTTTCATATCACAAA  
 CACAACATTTGATTTGATCTTTGCTCGCTGGACAAAACACAGTCCGTAACACTACAGAGTTACCTGGAA  
 ACATCTGGAACATCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC238915 representing NM\_001286691  
 Red=Cloning site Green=Tags(s)

MCAVQVKLELGHRAQVRKKPTVEGFTHDWMVVRGPEHSNIQHFVEKVVVFLHESFPRPKRVCKDPPYKV  
 EESGYAGFILPIEVYFKNKEEPRKVRFDYDLFLHLEHPPVNHRLRCEKLTFFNNPTEDFRRKLLKAGGDPN  
 RSIHTSS  
 SFKPHKLMKEHKEPKSKDSRE  
 HKSFAFKEPSRDHNKSSKESKPKENKPLKEEKIVPKMAFKEPKMSKEPKPDSNLLTITSGQDKKAPSK  
 RPPISDSEELSAKKRKKSSSEALFKSFSSAPPLILTCSADKKQIKDKSHVKMGKVKIESETSEKKKSTLP  
 PFDDIVDPNDSVEENISSKSDSEQSPASSSSSSSSSSSFTPSQTRQQPLRSIMKDLHSDNEEESDEVE  
 DNDNDSEMERPVNRGGSRRVSLSDGSDSESSASSPLHHEPPPPLLKTNNNQILEVKSPIKQSKSDKQ  
 IKNGECKAYLDELVELHRRMLTLRERHILQQIVNLIIEETGFHITNTTFDFDLCSLDKTTVRKLQSYLE  
 TSGTS

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**


**ACCN:** NM\_001286691

**ORF Size:** 1695 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\\_001286691.2](#)

**RefSeq Size:** 6703 bp

**RefSeq ORF:** 1698 bp

**Locus ID:** 4300

**UniProt ID:** [P42568](#)

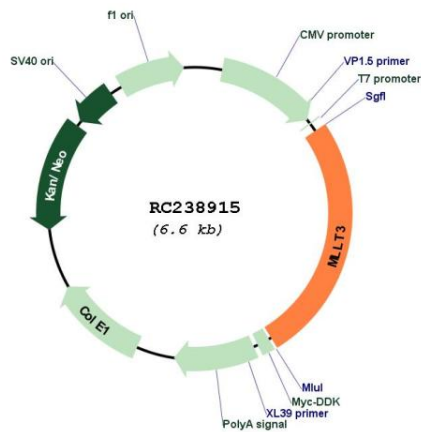
**Cytogenetics:** 9p21.3

**Protein Families:** Transcription Factors

**MW:** 63.6 kDa

**Gene Summary:** Chromatin reader component of the super elongation complex (SEC), a complex required to increase the catalytic rate of RNA polymerase II transcription by suppressing transient pausing by the polymerase at multiple sites along the DNA (PubMed:20159561, PubMed:20471948, PubMed:25417107, PubMed:27105114, PubMed:27545619). Specifically recognizes and binds acylated histone H3, with a marked preference for histone H3 that is crotonylated (PubMed:25417107, PubMed:27105114, PubMed:27545619). Crotonylation marks active promoters and enhancers and confers resistance to transcriptional repressors (PubMed:25417107, PubMed:27105114, PubMed:27545619). Recognizes and binds histone H3 crotonylated at 'Lys-9' (H3K9cr), and with slightly lower affinity histone H3 crotonylated at 'Lys-18' (H3K18cr) (PubMed:27105114). Also recognizes and binds histone H3 acetylated at 'Lys-9' (H3K9ac), but with lower affinity than crotonylated histone H3 (PubMed:25417107, PubMed:27105114). In the SEC complex, MLLT3 is required to recruit the complex to crotonylated histones (PubMed:27105114, PubMed:27545619).[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for RC238915