

Product datasheet for **RG238915**

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:	TurboGFP
Symbol:	AF9
Synonyms:	AF9; YEATS3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG238915 representing NM_001286691.
 Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGGATCGCC
ATGTGTCCCGTGCAGGTGAAGCTGGAGCTGGGGCACCGCGCCAGGTGAGGAAAAACCCACCGTGGAG
GGCTTCACCCACGACTGGATGGTGTTCGTACGCGGTCGGAGCACAGTAACATACAGCATTGTGGAG
AAAGTCGTCTTCCACTTGCACGAAAGCTTTCCTAGGCCAAAAAGAGTGTGCAAAGATCCACCTTACAAA
GTAGAAGAATCTGGGTATGCTGGTTTCATTTTGC AATTGAAGTTATTTTAAAAACAAGGAAGAACCT
AGGAAAGTCCGCTTTGATTATGACTTATTCCTGCATCTTGAAGGCCATCCACCAGTGAATCACCTCCGC
TGTGAAAAGCTAACTTTCAACAACCCACAGAGGACTTTAGGAGAAAGTTGCTGAAGGCAGGAGGGGAC
CCTAATAGGAGTATTCATACCAGCAGCAGCAGCAGCAGCAGCAGTAGCAGCAGCAGCAGCAGCAGCAGC
AGCAGCAGTAGCAGCAGCAGCAGCAGCAGCAGCAGCAGTAGCAGCAGCAGTAGCAGCAGCAGCAGCAGC
AGCAGTAGTACCAGTTTTTCAAAGCCTCACAATAATGAAGGAGCACAAGGAAAAACCTTCTAAGAC
TCCAGAGAACATAAAAGTGCCTTCAAAGAACCTTCCAGGGATCACAACAAATCTTCAAAGAATCCTCT
AAGAAACCCAAAAGAAAATAAACCACTGAAAGAAGAGAAAATAGTTCTTAAGATGGCTTCAAGGAACCT
AAACCCATGTCAAAGAGCCAAAACAGATAGTAACTTACTCACCATCACCAGTGGACAAGATAAGAAG
GCTCCTAGTAAAAGGCCCCATTTTCAGATTCTGAAGAACTCTCAGCCAAAAAAGGAAAAAGAGTAGC
TCAGAGGCTTTATTTAAAAGTTTTCTAGCGCACCACCACTGATACTCACTTGTCTGCTGACAAAAAA
CAGATAAAAGATAAATCTCATGTCAAGATGGGAAAAGTCAAATGAAAGTGAGACATCAGAGAAGAAG
AAATCAACGTTACCGCCATTTGATGATATTGTGGATCCCAATGATTGATGAGTGGAGGAGAATATATCC
TCTAAATCTGATTCTGAACAACCCAGTCCCTGCCAGCTCCAGCTCCAGCTCCAGCTCCAGCTTACACCA
TCCCAGACCAGGCAACAAGGTCTTTGAGGTCTATAATGAAAGATCTGATTCTGATGACAAATGAGGAG
GAATCAGATGAAGTGGAGGATAACGACAATGACTCTGAAATGGAGAGGCCGTGATAATAGAGGAGGCAGC
CGAAGTGCAGAGTTAGCTTAAAGTATGTCAGCGATAGTGAAGCAGTTCTGCTTCTTACCCTACAT
CACGAACCTCCACCACCTTACTAAAAACCAACAACCAACAGATTCTTGAAGTAAAAGTCCAATAAAG
CAAAGCAAATCAGATAAGCAAATAAAGAATGGTGAATGTGACAAGGCATACCTAGATGAACTGGTAGAG
CTTACAGAAAGTTAATGACATTGAGAGAAAGACATTCTGCAGCAGATCGTGAACCTTATAGAAGAA
ACTGGACACTTTCATATCACAACACAACATTTGATTTTGTCTTTGCTCGCTGGACAAAACCACAGTC
CGTAAACTACAGAGTTACCTGGAACATCTGGAACATCC
ACCGGTACGCGGCCGCTCGAG – GFP Tag – GTTTAAAC
  
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Protein Sequence:

>Peptide sequence encoded by RG238915
 Blue=ORF Red=Cloning site Green=Tag(s)

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MCAVQVKLELGHRAQVRKKPTVEGFTHDWMVFRGPEHSNIQHFVEKVVFHLHESFPRPRKRVCKDPPYK
VEESGYAGFILPIEVYFKNKEEPRKVRFDYDLFLHLEGHPPVNHLRCEKLFNNTEDFRRKLLKAGGD
PNRSIHTSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSTFSKPHKLMKEHKEKPSK
SREHKSAFKEPSRDHNKSSKESKPKENKPLKEEKIVPKMAFKEPKPMSKEPKPDSNLLTITSGQDKK
APSKRPPISDSEELSAKRRKSSSEALFKSFSSAPPLILTCSADKKQIKDKSHVKMGKVKIESETSEKK
KSTLPPFDDIVDPNDSVEENISSKSDSEQPSPASSSSSSSSSFTPSQTRQQPLRSIMKDLHSDNEE
ESDEVEDNDNDSMERPVNRGGSRRVSLSDGSDSESSASSPLHHEPPPLLLKTNNNQILEVKSPIK
QSKSDKQIKNGECDKAYLDELVELHRRLMTLRERHILQQIVNLEETGHFHITNTTFDFDLCSLDKTTV
RKLQSYLETSGTS
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
MGYGFYHFGTYPSTYSGYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPE
SVIFTDKIIRSNAIVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVDSHMHFKSAIHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
  
```

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).

RefSeq: [NM_001286691.2](#)

RefSeq Size: 6703 bp

RefSeq ORF: 1698 bp

Locus ID: 4300

UniProt ID: [P42568](#)

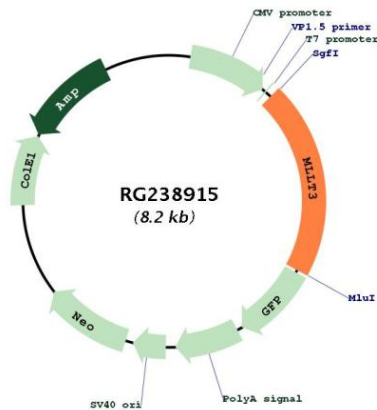
Cytogenetics: 9p21.3

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 RG238915