

## Product datasheet for **SC127943**

### AF9 (MLLT3) (NM\_004529) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	AF9 (MLLT3) (NM_004529) Human Untagged Clone
Tag:	Tag Free
Symbol:	AF9
Synonyms:	AF9; YEATS3
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene ORF within SC127943 sequence for NM\_004529 edited (data generated by NextGen Sequencing)

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ATGGCTAGCTCGTGTGCCGTGCAGGTGAAGCTGGAGCTGGGGCACCGCGCCAGGTGAGG
AAAAAACCACCGTGGAGGGCTTACCCACGACTGGATGGTGTTTCGTACGCGGTCCGGAG
CACAGTAACATACAGCACTTTGTGGAGAAAGTCGTCTTCCACTTGACGAAAGCTTCTCT
AGGCCAAAAAGAGTGTGCAAAGATCCACCTTACAAAGTAGAAGAATCTGGGTATGCTGGT
TTCATTTTGCCAATTGAAGTTTATTTTAAAAACAAGGAAGAACCCTAGGAAAGTCCGCTTT
GATTATGACTTATTCCTGCATCTTGAAGGCCATCCACCAGTGAATCACCTCCGCTGTGAA
AAGCTAATTTCAACAACCCACAGAGGACTTTAGGAGAAAGTTGCTGAAGGCAGGAGGG
GACCTAATAGGAGTATTCATACCAGCAGCAGCAGCAGCAGCAGCAGCAGTAGCAGCAGCAGC
AGCAGCAGCAGCAGCAGCAGTAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGTAGCAGC
AGCAGTAGCAGCAGCAGCAGCAGTAGTACCAGTTTTTCAAAGCCTCACAAATTAATG
AAGGAGCACAAAGAAAAACCTTCTAAAGACTCCAGAGAACATAAAAGTGCCTTCAAAGAA
CCTTCCAGGGATCACAAATCTTCAAAGAATCCTCTAAGAAACCCAAAGAAAAATAAA
CCACTGAAAGAAGAGAAAATAGTTCCTAAGATGGCCTTCAAGGAACCTAAACCCATGTCA
AAAGAGCCAAAACAGATAGTAACCTACTCACCATCACCAGTGGACAAGATAAGAAGGCT
CCTAGTAAAAGGCCGCCATTTAGATTCTGAAGAACTCTCAGCCAAAAAAGGAAAAAG
AGTAGCTCAGAGGCTTTATTTAAAAGTTTTTCTAGCGCACCCACTGATACTCACTTGT
TCTGCTGACAAAAACAGATAAAAGATAAATCTCATGTCAAGATGGGAAAGGTCAAATTT
GAAAGTGAGACATCAGAGAAGAAGAAATCAACGTTACCGCCATTTGATGATATTGTGGAT
CCCAATGATTGATGTGGAGGAGAATATATCCTCTAAATCTGATTCTGAACAACCCAGT
CCTGCGAGCTCCAGCTCCAGCTCCAGCTCCAGCTTACACCATCCAGACCAGGCAACAA
GGTCCCTTGAGGTCTATAATGAAAGATCTGCATTCTGATGACAATGAGGAGGAATCAGAT
GAAGTGGAGGATAACGACAATGACTCTGAAATGGAGAGGCTGTAAATAGAGGAGGCAGC
CGAAGTGCAGAGTTAGCTTAAAGTATGGCAGCGATAGTGAAGCAGTTCTGCTTCTTCA
CCCCTACATCACGAACCTCCACCACCTTACTAAAAACCAACAACAACCAGATTCTTGAA
GTGAAAAGTCCAATAAAGCAAAGCAAAATCAGATAAGCAAATAAAGAATGGTGAATGTGAC
AAGGCATACCTAGATGAACTGGTAGAGCTTACAGAAAGTTAATGACATTGAGAGAAAGA
CACATTCTGCAGCAGATCGTGAACCTTATAGAAGAACTGGACACTTTCATATCACAAAC
ACAACATTTGATTTTGTCTTGGCTCGCTGGACAAAACACAGTCCGTAAACTACAGAGT
TACCTGGAACATCTGGAACATCTGA
    
```

Clone variation with respect to NM\_004529.2

**5' Read Nucleotide Sequence:** >OriGene 5' read for NM\_004529 unedited

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TTTGTAATACGACTCACTATAGGGCGCCGCAATTCGGCAGCAGGGCATGCTCCGCAAT
CATCTTCTTTACCCTGGAGCTGCTGCTGCTTTTTGCTTTTGGGGCTGAGTTT
AATAAGCGAGCGAGCAGCAAGCGAGCGGGGGGAAAAAGGCAGAGAATGTCCGCCATC
TACCCTCCGCTCCTGGGCGCGCTCTCATTATAGCAGCCTCTTTCATGAATTACAGCTGAG
GGGGGGCGGAGGAGGGGGGGTACCACACAACACCCAGCAAACCTCCGGGCCCCAGGC
ATGGCTAGCTCGTGTGCCGTGCAGGTGAAGCTGGAGCTGGGGCACCGCGCCAGGTGAGG
AAAAAACCACCGTGGAGGGCTTACCCACGACTGGATGGTGTTTCGTACGCGGTCCGGAG
CACAGTAACATACAGCACTTTGTGGAGAAAGTCGTCTTCCACTTGACGAAAGCTTCTAG
CCAAAGAGGGCAAGATCACCTTACAAGAAAAATGGGATGCGGTATTTGCATGAATTATT
TAAAACAGAAAACCTAGAACCGTTGAATGACTTATCGCTCTGAGCCTCACCGGAATACCT
CGTGAAAAGTACTTACACCCACGAGACTTAGGAGAAGTCTGAGGCANGAGGGGACCC
TATAAGAGTATNCATACCAGCAGCAGCAGCAGCAGCAGTAGCAGCAGCAGCAGCAGCAGC
AGCAGCAGCAGCAGTAGCAGCAGCAGCAGCAGCAGCAGCAGCAGTAGCAGCAGCAGT
AGCAGCAGCAGCAGCAGTAGTACCAGTTTTTCAAGGCCATAATNAATGAAAGGAG
CCA
    
```

<b>3' Read Nucleotide Sequence:</b>	>OriGene 3' read for NM_004529 unedited TTCAAAACAGGGTACAACAAGAAACAAAAAATCCCCCATCCCCAACCGTCTTTCACCA ATACAAGAAATCCTTCTGGAAATATTAGCAAGCAACTAACAGGTATTGAACCACTGAAT CTACAAGTTAATACATAATCTGTTATGGCAGAATAACCAAGAATTTTCCCCAAAGAAAG ATTTTAATTTTTTCAAATATAAAAGTGTCTAAGAGAATCATATGTGAACA
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_004529
<b>Insert Size:</b>	3200 bp
<b>OTI Disclaimer:</b>	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).
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<u><a href="#">NM_004529.1</a></u> , <u><a href="#">NP_004520.1</a></u>
<b>RefSeq Size:</b>	3376 bp
<b>RefSeq ORF:</b>	1707 bp
<b>Locus ID:</b>	4300
<b>UniProt ID:</b>	<u><a href="#">P42568</a></u>
<b>Cytogenetics:</b>	9p21.3
<b>Domains:</b>	YEATS
<b>Protein Families:</b>	Transcription Factors

**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]

Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (a). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.