

Product datasheet for **RC206283**

AF9 (MLLT3) (NM_004529) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	AF9 (MLLT3) (NM_004529) 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:

>RC206283 ORF sequence
Red=Cloning site **Blue**=ORF **Green**=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCC**GCGATCGCC**

ATGGCTAGCTCGTGTGCCGTGCAGTGAAGCTGGAGCTGGGGCACCGCGCCAGGTGAGGAAAAACCCA
 CCGTGGAGGGCTTCACCCACGACTGGATGGTGTTCGTACGCGGTCGGAGCACAGTAACATACAGCACTT
 TGTGGAGAAAGTCGTCTTCCACTTGCACGAAAGCTTTCCTAGGCCAAAAAGAGTGTGCAAAGATCCACCT
 TACAAAGTAGAAGAATCTGGGTATGCTGGTTTCATTTTGCCAATTGAAGTTTATTTTAAAAACAAGGAAG
 AACCTAGGAAAGTCCGCTTTGATTATGACTTATTCCTGCATCTTGAAGGCCATCCACCAGTGAATCACCT
 CCGCTGTGAAAAGCTAACTTTCAACAACCCACAGAGGACTTTAGGAGAAAGTTGCTGAAGGCAGGAGGG
 GACCCTAATAGGAGTATTCATACCAGCAGCAGCAGCAGCAGCAGCAGTGCAGCAGCAGCAGCAGCAGCA
 GCAGCAGCAGTGCAGCAGCAGCAGCGGCAGCAGCAGCAGCAGTGCAGCAGCAGTGCAGCAGCAGCAGCAG
 CAGCAGTGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGTGCAGCAGCAGTGCAGCAGCAGCAGCAG
 TCCAGAGAACATAAAAGTGCCTTCAAAGAACCTTCCAGGGATCACAACAATCTTCAAAGAATCCCTCTA
 AGAAACCCAAAGAAAATAAACCACTGAAAGAAAGAGAAAATAGTTCCTAAGATGGCCTTCAAGGAACCTAA
 ACCCATGTCAAAGAGCCAAAACAGATAGTAACTTACTCACCATCACCAGTGGACAAGATAAGAAGGCT
 CCTAGTAAAAGGCCGCCATTTCCAGATTCTGAAGAAGTCTCAGCCAAAAAAGGAAAAAGAGTAGCTCAG
 AGGCTTTATTTAAAGTTTTCTAGCGCACCACCAGTACTACTTGTCTGTGACAAAAACAGAT
 AAAAGATAAATCTCATGTCAAGATGGGAAAGGTCAAAATGAAAGTGAGACATCAGAGAAGAAGAAATCA
 ACGTTACCGCCATTTGATGATATTGTGGATCCCAATGATTCAGATGTGGAGGAGAATATATCCTCTAAAT
 CTGATTCTGAACAACCCAGTCCGCCAGCTCCAGCTCCAGCTCCAGCTCCAGCTCCAGCTCCAGCTCCAGC
 CAGGCAACAAGGTCCTTTGAGGTCTATAATGAAAGATCTGCATTCTGATGACAATGAGGAGGAATCAGAT
 GAAGTGGAGGATAACGACAATGACTCTGAAATGGAGAGGCTGTAAATAGAGGAGGCAGCCGAAGTCGCA
 GAGTTAGCTTAAGTGATGGCAGCGATAGTGAAGCAGTTCTGCTTCTTACCCCTACATCACGAACCTCC
 ACCACCCTTACTAAAAACCAACAACAACAGATTCTTGAAGTGAAGGTCGAATAAAGCAAGCAAAATCA
 GATAAGCAAAATAAGAATGGTGAATGTGACAAGGCATACCTAGATGAACTGGTAGAGCTTACAGAAGGT
 TAATGACATTGAGAGAAAGACACATTCTGCAGCAGATCGTGAACCTTATAGAAGAACTGGACACTTTCA
 TATCACAACACAACATTTGATTTTGATCTTTGCTCGCTGGACAAAACCACAGTCCGTAACCTACAGAGT
 TACCTGGAACATCTGGAACATCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC206283 protein sequence
Red=Cloning site **Green**=Tags(s)

MASSCAVQVKLELGHRAQVRKKPTVEGFTHDWMVFRGPEHSNIQHFVEKVVFLHESFPRPKRVCKDPP
 YKVEESGYAGFILPIEVYFKNKEEPRKVRFDYDLFLHLEGHPPVNHRLRCEKLFNNPTEDFRKLLKAGG
 DPNRSIHTSS
 SREHKSFAFKEPSRDHNKSSKESKPKENKPLKEEKIVPKMAFKEPKPMSKEPKPDSNLLTITSGQDKKA
 PSKRPPISDSEELSAKRRKSSSEALFKSFSSAPPLILTCSADKKQIKDKSHVKMGKVKIESETSEKKS
 TLPPFDDIVDPNDSVEENISSKSDSEQSPASSSSSSSSSFTPSQTRQGPLRSIMKDLHSDNNEESD
 EVEDNDNDSEMERPVNRRGSRRRVSLSDGSDSESSASSPLHHEPPPPLKTNNNQILEVKSPIKQSKS
 DKQIKNGECDKAYLDELVELHRRMLTLRERHILQQIVNLIETEGHFHITNTTFDFDLCSLDKTTVRKLQS
 YLETSCTS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6041_h01.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_004529

ORF Size: 1704 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_004529.4](#)

RefSeq Size: 6787 bp

RefSeq ORF: 1707 bp

Locus ID: 4300

UniProt ID: [P42568](#)

Cytogenetics: 9p21.3

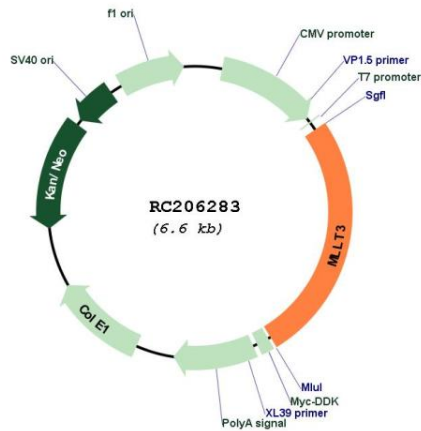
Domains: YEATS

Protein Families: Transcription Factors

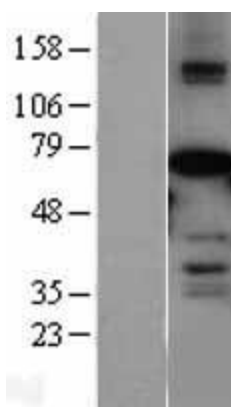
MW: 63.3 kDa

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]

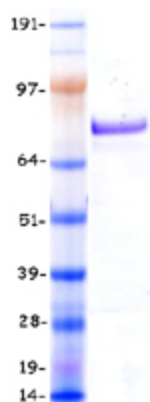
Product images:



Circular map for RC206283



Western blot validation of overexpression lysate (Cat# [LY401439]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206283 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MLLT3 protein (Cat# [TP306283]). The protein was produced from HEK293T cells transfected with MLLT3 cDNA clone (Cat# RC206283) using MegaTran 2.0 (Cat# [TT210002]).