

Product datasheet for **RG206283**

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:	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:

>RG206283 representing NM_004529
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCCGCATCGCC

ATGGCTAGCTCGTGTGCCGTGCAGTGAAGCTGGAGCTGGGGCACCGCGCCAGGTGAGGAAAAACCCA
CCGTGGAGGGCTTCAACCACGACTGGATGGTGTTCGTACGCGGTCGGAGCACAGTAACATACAGCACTT
TGTGGAGAAAGTCGTCTTCCACTTGCACGAAAGCTTTCCTAGGCCAAAAAGAGTGTGCAAAGATCCACCT
TACAAAGTAGAAGAATCTGGGTATGCTGGTTTCATTTTGCCAATTGAAGTTTATTTTAAAAACAAGGAAG
AACCTAGGAAAGTCCGCTTTGATTATGACTTATTCCTGCATCTTGAAGGCCATCCACCAGTGAATCACCT
CCGCTGTGAAAAGCTAACTTTCAACAACCCACAGAGGACTTTAGGAGAAAGTTGCTGAAGGCAGGAGGG
GACCCTAATAGGAGTATTCATACCAGCAGCAGCAGCAGCAGCAGCAGTGCAGCAGCAGCAGCAGCAGCA
GCAGCAGCAGTGCAGCAGCAGCAGCGGCAGCAGCAGCAGCAGTGCAGCAGCAGTGCAGCAGCAGCAGCAG
CAGCAGTGTACCAGTTTTTCAAAGCCTCACAAATTAATGAAGGAGCACAAAGAAAAACCTTCTAAAGAC
TCCAGAGAACATAAAAAGTGCCTTCAAAGAACCTTCCAGGGATCACAACAATCTTCAAAGAATCCCTCTA
AGAAACCCAAAAGAAAATAAACCACTGAAAGAAGAGAAAATAGTTCCTAAGATGGCCTTCAAGGAACCTAA
ACCCATGTCAAAGAGCCAAAACAGATAGTAACTTACTCACCATCACCAGTGGACAAGATAAGAAGGCT
CCTAGTAAAAGGCCGCCATTTTCAGATTCTGAAGAACTCTCAGCCAAAAAAGGAAAAAGAGTAGCTCAG
AGGCTTTATTTAAAAGTTTTCTAGCGCACCACCAGTACTACTCCTTGTCTGCTGACAAAAACAGAT
AAAAGATAAATCTCATGTCAAGATGGGAAAGGTCAAAATGAAGTGAGACATCAGAGAAGAAGAAATCA
ACGTTACCGCCATTTGATGATATTGTGGATCCCAATGATTCAGATGTGGAGGAGAATATATCCTCTAAAT
CTGATTTGAACAACCCAGTCTGCCAGCTCCAGCTCCAGCTCCAGCTCCAGCTCCAGCTCCAGCTCCAGCT
CAGGCAACAAGTCCCTTTGAGGTCTATAATGAAAGATCTGCATTCTGATGACAATGAGGAGGAATCAGAT
GAAGTGGAGGATAACGACAATGACTCTGAAATGGAGAGGCTGTAAATAGAGGAGGCAGCCGAAGTCGCA
GAGTTAGCTTAAGTGATGGCAGCGATAGTGAAGCAGTTCTGCTTCTTACCCCTACATCACGAACCTCC
ACCACCCTTACTAAAACCAACAACAACAGATTCTTGAAGTGAAGGTCCTAATAAGCAAGCAAAATCA
GATAAGCAATAAAGAATGGTGAATGTGACAAGGCATACCTAGATGAACTGGTAGAGCTTACAGAAGGT
TAATGACATTGAGAGAAAGACACATTCTGCAGCAGATCGTGAACCTTATAGAAGAACTGGACACTTTCA
TATCACAACACAACATTTGATTTTGTCTTTGCTCGCTGGACAAAACACAGTCCGTAACCTACAGAGT
TACCTGGAACATCTGGAACATCC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG206283 representing NM_004529
Red=Cloning site Green=Tags(s)

MASSCAVQVKLELGHRAQVRKKPTVEGFTHDWMVFRGPEHSNIQHFVEKVVFLHESFPRPKRVCKDPP
YKVEESGYAGFILPIEVYFKNKEEPKRVFDYDLFLHLEGHPPVNHRLRCEKLTFFNNPTEDFRRKLLKAGG
DPNRSIHTSS
SREHKSFAFKEPSRDHNKSSKESKPKENKPLKEEKIVPKMAFKEPKPMSKEPKPDSNLLTITSGQDKKA
PSKRPPISDSEELSAKRRKSSSEALFKSFSSAPPLILTCSADKKQIKDKSHVKMGVKVIESETSEKKKS
TLPPFDIVDPNDSVEENISSKSDSEQSPASSSSSSSSSSSFTPSQTRQQGPLRSIMKDLHSDDNEEESD
EVEDNDNDEMERPVNRGSRRRVSLSDGSDSESSASSPLHHEPPPLKTNNNQILEVKSPIKQSKS
DKQIKNGECDKAYLDELVELHRRMLTLRERHILQQIVNLIETGHHITNTTDFDLCSLDKTTVRKLQS
YLETSGTS

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

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_004529.1](#), [NP_004520.1](#)

RefSeq Size: 3376 bp

RefSeq ORF: 1707 bp

Locus ID: 4300

UniProt ID: [P42568](#)

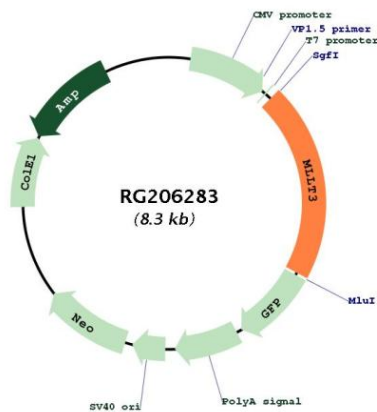
Cytogenetics: 9p21.3

Domains: YEATS

Protein Families: 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]

Product images:



Circular map for RG206283