

Recombinant MLLT3 / AF9 (1-138) protein

Catalog No: 81124

Lot No: 06118001

Expressed In: *E. coli*

Quantity: 50, 1000 µg

Concentration: 0.4 µg/µl

Source: Human

Buffer Contents: Recombinant MLLT3 / AF9 (1-138) protein is supplied in 25 mM Tris-HCl pH 7.4, 500 mM NaCl, 2 mM EDTA, 2 mM DTT, 10% glycerol, 0.5 mM TCEP.

Background: MLLT3 (Myeloid/Lymphoid Or Mixed-Lineage Leukemia Translocated To Chromosome 3 Protein), also known as YEATS3 or AF9, is a 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. It specifically recognizes and binds acylated histone H3, with a marked preference for histone H3 that is crotonylated. Crotonylation marks active promoters and enhancers and confers resistance to transcriptional repressors. MLLT3 recognizes and binds histone H3 crotonylated at Lys-9 (H3K9cr), and with slightly lower affinity histone H3 crotonylated at Lys-18 (H3K18cr). It also recognizes and binds histone H3 acetylated at Lys-9 (H3K9ac), but with lower affinity than crotonylated histone H3. In the SEC complex, MLLT3 is required to recruit the complex to crotonylated histones.

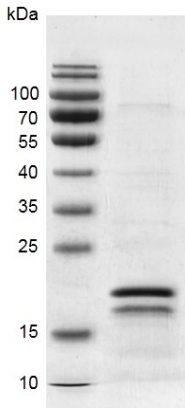
Protein Details: Recombinant MLLT3 / AF9 (1-138) protein was expressed in *E. coli* as the full length protein (accession number NP_004520.2) with an N-terminal 6Å-His tag. The molecular weight of the protein is 19.8 kDa.

Application Notes: This protein is suitable for use in binding assays, inhibitor screening, and selectivity profiling.

Binding Assay for Recombinant MLLT3 / AF9 (1-138) protein: 0.25 nmol biotinylated H3K9ac peptide was incubated with 0.25 nmol MLLT3 / AF9 (1-138) protein in binding buffer containing 20 mM Tris-HCl pH 8.0, 150 mM NaCl, 5% glycerol, 0.1% Triton X-100. Peptide-protein compounds were incubated with streptavidin beads for 4 hours at 4°C, and pull-down products were run on a 10% SDS-PAGE gel, stained with Coomassie Blue. (Single MLLT3 / AF9 (1-138) protein was used as negative control). * indicates streptavidin.

Storage and Guarantee: Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is for research use only and is not for use in diagnostic procedures. This product is guaranteed for 6 months from date of arrival.

YEATS3 / AF9(1-138)



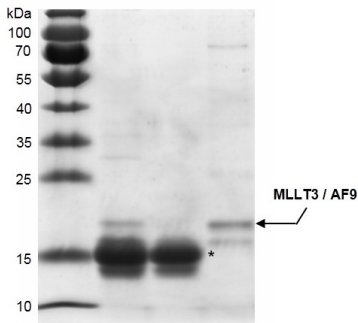
Recombinant MLLT3 / AF9 (1-138) protein gel

13% SDS-PAGE Coomassie staining

MW: 19.8 kDa

Purity: >60%

AF9	+	+	20% Input
Biotin-H3K9ac	+	-	
Streptavidin beads	+	+	



Binding Assay for Recombinant MLLT3 / AF9 protein

0.25 nmol biotinylated H3K9ac peptide was incubated with 0.25 nmol MLLT3 / AF9 (1-138) protein in binding buffer. Peptide-protein compounds were incubated with streptavidin beads and pull-down products were run on SDS-PAGE gel, stained with Coomassie Blue. (Single MLLT3 / AF9 protein used as negative control). * indicates Streptavidin.