

Recombinant Mouse Mllt3 Protein, Myc/DDK-tagged

Cat. No. Mllt3-4092M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of mouse full-length myeloid/lymphoid or mixed-lineage leukemia; translocated to, 3 (Mllt3), with C-terminal MYC/DDK tag, expressed in HEK293T cells.
Species	Mouse
Source	HEK293
Description	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. Specifically recognizes and binds acylated histone H3, with a preference for histone H3 that is crotonylated. Crotonylation marks active promoters and enhancers and confers resistance to transcriptional repressors. Recognizes and binds histone H3 crotonylated at 'Lys-9' (H3K9cr), and with slightly lower affinity histone H3 crotonylated at 'Lys-18' (H3K18cr). Also recognizes and binds histone H3 acetylated and butyrylated at 'Lys-9' (H3K9ac and H3K9bu, respectively), but with lower affinity than crotonylated histone H3. In the SEC complex, MLLT3 is required to recruit the complex to crotonylated histones. Recruitment of the SEC complex to crotonylated histones promotes recruitment of DOT1L on active chromatin to deposit histone H3 'Lys-79' methylation (H3K79me). Plays a key role in hematopoietic stem cell (HSC) maintenance by preserving, rather than conferring, HSC stemness. Acts by binding to the transcription start site of active genes in HSCs and sustaining level of H3K79me2, probably by recruiting DOT1L.

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Molecular Mass	63.8 kDa
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade after receiving vials.
Concentration	>50 µg/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

GENE INFORMATION

Gene Name	MLlt3 myeloid/lymphoid or mixed-lineage leukemia; translocated to, 3 [Mus musculus (house mouse)]
Official Symbol	MLlt3
Synonyms	MLLT3; myeloid/lymphoid or mixed-lineage leukemia (trithorax homolog, Drosophila); translocated to, 3; protein AF-9; myeloid/lymphoid or mixed lineage-leukemia translocation to 3 homolog; myeloid/lymphoid or mixed lineage-leukemia translocation to 3 homolog; myeloid/lymphoid or mixed-lineage leukemia translocated to chromosome 3 protein homolog; Af9; D4Ert321e; 2210011H10Rik; 2610012I03Rik; 3830408D16Rik
Gene ID	70122
mRNA Refseq	NM_027326

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Protein Refseq	NP_081602
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UniProt ID	A2AM29
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