

MLLT10 (AF10) Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP6187a

Product Information

Application	WB, IHC-P, E
Primary Accession	P55197
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB1930
Calculated MW	113320
Antigen Region	998-1027

Additional Information

Gene ID	8028
Other Names	Protein AF-10, ALL1-fused gene from chromosome 10 protein, MLLT10, AF10
Target/Specificity	This MLLT10 (AF10) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 998-1027 amino acids from the C-terminal region of human MLLT10 (AF10).
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	MLLT10 (AF10) Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MLLT10 (HGNC:16063)
Function	Probably involved in transcriptional regulation. In vitro or as fusion protein with KMT2A/MLL1 has transactivation activity. Binds to cruciform DNA. In cells, binding to unmodified histone H3 regulates DOT1L functions including histone H3 'Lys-79' dimethylation (H3K79me2) and gene activation (PubMed: 26439302).

Cellular Location	Nucleus.
Tissue Location	Expressed abundantly in testis.

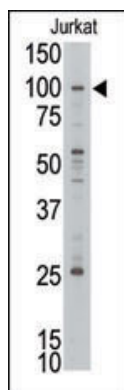
Background

Translocations affecting chromosome 11q23 involve many partner chromosome regions and occur in various leukemias. The 11q23 gene involved in the translocations is MLL. MLLT10 is the partner gene to MLL1 involved in t(10;11)(p12;q23) translocations. In an analysis of two leukemia patients, the in t(10;11)(p12;q23) translocation fuses MLL1, a SET domain containing histone methyltransferase, to the MLLT10 gene. The MLLT10 gene encodes a predicted 1,027-amino acid protein containing an N-terminal zinc finger and a C-terminal leucine zipper domain. The MLLT10 gene is one of the few MLL partner genes to be independently rearranged with a third gene in leukemia, the CALM gene in the t(10;11)(p12;q14) translocation. Chimeric fusion proteins MLL/AF10 and CALM/AF10 consistently retain the leucine zipper motif of MLLT10. The leucine zipper interacts with GAS41, a protein previously identified as the product of an amplified gene in a glioblastoma. GAS41 interacts with integrase interactor-1 (INI1), a component of the SWI/SNF complex, which acts to remodel chromatin and to modulate transcription. Retention of the leucine zipper in the MLL and CALM fusions suggested that a key feature of these chimeric proteins may be their ability to interfere in normal gene regulation through interaction with the adenosine triphosphate-dependent chromatin remodeling complexes.

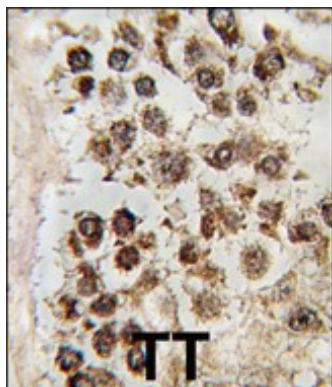
References

Perrin, L., et al., Mol. Cell. Biol. 23(1):119-130 (2003).
 Nakamura, T., et al., Mol. Cell 10(5):1119-1128 (2002).
 Roll, P., et al., Cancer Genet. Cytogenet. 135(2):187-191 (2002).
 Chaplin, T., et al., Blood 85(6):1435-1441 (1995).

Images



Western blot analysis of anti-MLLT10 Pab (Cat. #AP6187a) in Jurkat cell line lysate. MLLT10(arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human testis tissue reacted with MLLT10 antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.