

MLLT10 (AF10) Antibody (N-term M1) Blocking peptide
Synthetic peptide
Catalog # BP1906a**Specification**

MLLT10 (AF10) Antibody (N-term M1) Blocking peptide - Product InformationPrimary Accession [P55197](#)**MLLT10 (AF10) Antibody (N-term M1) Blocking peptide - Additional Information****Gene ID** 8028**Other Names**

Protein AF-10, ALL1-fused gene from chromosome 10 protein, MLLT10, AF10

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP1906a](/product/products/AP1906a) was selected from the N-term region of human MLLT10. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

MLLT10 (AF10) Antibody (N-term M1) Blocking peptide - 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: <http://www.uniprot.org/citations/26439302> target="_blank">26439302).

Cellular Location

Nucleus.

Tissue Location

Expressed abundantly in testis.

MLLT10 (AF10) Antibody (N-term M1) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

MLLT10 (AF10) Antibody (N-term M1) Blocking peptide - Images

MLLT10 (AF10) Antibody (N-term M1) Blocking peptide - 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.

MLLT10 (AF10) Antibody (N-term M1) Blocking peptide - References

Perrin, L., et al., Mol. Cell. Biol. 23(1):119-130 (2003). Roll, P., et al., Cancer Genet. Cytogenet. 135(2):187-191 (2002). Nakamura, T., et al., Mol. Cell 10(5):1119-1128 (2002). Debernardi, S., et al., Blood 99(1):275-281 (2002). Cai, Y., et al., Mol. Reprod. Dev. 61(1):126-134 (2002).