10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

MLL2 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP6183a

Specification

MLL2 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession	O14686
Other Accession	NP_003473

MLL2 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 8085

Other Names
Histone-lysine N-methyltransferase 2D, Lysine N-methyltransferase 2D, ALL1-related protein, Myeloid/lymphoid or mixed-lineage leukemia protein 2, KMT2D, ALR, MLL2, MLL4

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP6183a was selected from the C-term region of human MLL2 . 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.

MLL2 Antibody (C-term) Blocking Peptide - Protein Information

Name KMT2D

Synonyms ALR, MLL2, MLL4

Function
Histone methyltransferase that catalyzes methyl group transfer from S-adenosyl-L-methionine to the epsilon-amino group of 'Lys-4' of histone H3 (H3K4) (PubMed:25561738). Part of chromatin remodeling machinery predominantly forms H3K4me1 methylation marks at active chromatin sites where transcription and DNA repair take place (PubMed:25561738, PubMed:17500065). Acts as a coactivator for estrogen receptor by being recruited by ESR1, thereby activating transcription

(PubMed:16603732).

Cellular Location
Nucleus.

Tissue Location
Expressed in most adult tissues, including a variety of hematoipoietic cells, with the exception of the liver

MLL2 Antibody (C-term) Blocking Peptide - Protocols

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

- Blocking Peptides

MLL2 Antibody (C-term) Blocking Peptide - Images

MLL2 Antibody (C-term) Blocking Peptide - Background

The SET domain is a conserved C-terminal domain that characterizes proteins of the MLL family, including MLL2. The MLL SET domain is a histone H3 Lys4 (K4)-specific methyltransferase whose activity is stimulated with acetylated H3 peptides. The gene for MLL2 encodes a 5,262-amino acid protein containing a SET domain, 5 PHD fingers, potential zinc fingers, and a long run of glutamines interrupted by hydrophobic residues (mostly leucine). They also detected an alternatively spliced form encoding 4,957 amino acids and lacking an N-terminal zinc finger and PHD finger. By analysis of rodent/human hybrid cells and analysis of the Genebridge radiation hybrid panel, they mapped the gene to the 12p13.1-qter region. The 12q12-q13 region is involved in duplications and translocations associated with cancer. By database searching, Karlin et al. (2002) identified 192 human protein sequences that have multiple amino acid runs, many of which are associated with disease, including cancer. Karlin et al. (2002) found that a key aspect of 82 of these protein sequences is their role in transcription, translation, and developmental regulation. MLL2 is a striking example of proteins with multiple amino acid runs, with 22 glutamine runsGenes encoding a significant number of long amino acid runs are potentially associated with diseases, such as cancer.

MLL2 Antibody (C-term) Blocking Peptide - References

Prasad, R., et al., Oncogene 15(5):549-560 (1997).