

MLL3 Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP6184c**Specification**

MLL3 Antibody (Center) Blocking Peptide - Product InformationPrimary Accession [Q8NEZ4](#)**MLL3 Antibody (Center) Blocking Peptide - Additional Information****Gene ID** 58508**Other Names**

Histone-lysine N-methyltransferase 2C, Lysine N-methyltransferase 2C, Homologous to ALR protein, Myeloid/lymphoid or mixed-lineage leukemia protein 3, KMT2C, HALR, KIAA1506, MLL3

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP6184c](/product/products/AP6184c) was selected from the Center region of human MLL3. 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.

MLL3 Antibody (Center) Blocking Peptide - Protein Information**Name** KMT2C**Synonyms** HALR, KIAA1506, MLL3**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](http://www.uniprot.org/citations/25561738)). Part of chromatin remodeling machinery predominantly forms H3K4me1 methylation marks at active chromatin sites where transcription and DNA repair take place (PubMed: [25561738](http://www.uniprot.org/citations/25561738), PubMed: [24081332](http://www.uniprot.org/citations/24081332), PubMed: [22266653](http://www.uniprot.org/citations/22266653)). Likely plays a redundant role with KMT2D in enriching H3K4me1 mark on primed and active enhancer

elements (PubMed: 24081332).

Cellular Location

Nucleus.

Tissue Location

Highly expressed in testis and ovary, followed by brain and liver. Also expressed in placenta, peripheral blood, fetal thymus, heart, lung and kidney. Within brain, expression was highest in hippocampus, caudate nucleus, and substantia nigra. Not detected in skeletal muscle and fetal liver

MLL3 Antibody (Center) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

MLL3 Antibody (Center) Blocking Peptide - Images

MLL3 Antibody (Center) Blocking Peptide - Background

The SET domain is a conserved C-terminal domain that characterizes proteins of the MLL family, including MLL3. The MLL SET domain is a histone H3 Lys4 (K4)-specific methyltransferase whose activity is stimulated with acetylated H3 peptides. MLL3 maps to 7q36, a chromosome region frequently deleted in myeloid leukaemia. The deduced MLL3 4,911-amino acid protein is more closely related to MLL2 than to MLL1 or MLL4. MLL3 has 6 plant homeodomain (PHD) fingers preceded by a cys-rich ZNF1 domain in its N terminus; a high mobility group (HMG) box, an ATPase alpha-beta signature, and a leucine zipper motif in its central region; and 2 C-terminal FY (phe-tyr) motifs and the SET domain preceded by a ZNF2 domain in its C terminus. The predicted protein also contains several putative nuclear localization motifs. Isoform II lacks ZNF1 and the PHD.

MLL3 Antibody (Center) Blocking Peptide - References

Ota, T., et al., Nat. Genet. 36(1):40-45 (2004). Hillier, L.W., et al., Nature 424(6945):157-164 (2003). Goo, Y.-H., et al., Mol. Cell. Biol. 23(1):140-149 (2003). Tan, Y.C., et al., Cancer Detect. Prev. 25(5):454-469 (2001). Nagase, T., et al., DNA Res. 7(2):143-150 (2000).