

MLL3 monoclonal antibody

Catalog: MB67154

Host: Mouse

Reactivity: Human

BackGround:

The Set1 histone methyltransferase protein was first identified in yeast as part of the Set1/COMPASS histone methyltransferase complex, which methylates histone H3 at Lys4 and functions as a transcriptional co-activator. While yeast contain only one known Set1 protein, mammals contain six Set1-related proteins: SET1A, SET1B, MLL1, MLL2, MLL3, and MLL4, all of which assemble into COMPASS-like complexes and methylate histone H3 at Lys4. These Set1-related proteins are each found in distinct protein complexes, all of which share the common subunits WDR5, RBBP5, ASH2L, CXXC1 and DPY30, which are required for proper complex assembly and modulation of histone methyltransferase activity. MLL1 and MLL2 complexes contain the additional protein subunit, menin.

MLL3, also known as histone-lysine N-methyltransferase 2C (KMT2C), is a large 540 kDa protein that functions as part of the MLL3/COMPASS-like complex to activate gene expression by mediating mono-methylation of histone H3 lysine 4 at gene enhancers. Enhancer-specific H3 lysine 4 mono-methylation (H3K4me1) correlates with increased levels of chromatin interactions between gene enhancers and promoters, while loss of this modification results in a reduction of enhancer-promoter interactions. Furthermore, H3K4me1 facilitates recruitment of the Cohesin complex, which may function to promote the interactions between gene enhancers and promoters. MLL3 is found to be mutated or have altered expression in a number of different cancers.

Product:

Mouse IgG1 kappa. Liquid in PBS, pH 7.3, 30% glycerol,

and 0.01% sodium azide.

Molecular Weight:

~ 540 kDa

Swiss-Prot:

Q8NEZ4

Purification&Purity:

This antibody is purified through a protein G column.

Applications:

WB (1/500 - 1/1000)

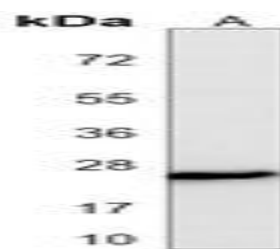
Storage&Stability:

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

Specificity:

Recognizes endogenous levels of MLL3 protein.

DATA:



Western blot analysis of MLL3 expression in recombinant protein (A) whole cell lysates.

Note:

For research use only, not for use in diagnostic procedure.

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