

KDM1A monoclonal antibody

Catalog: MB66473

Host: Mouse

Reactivity: Human, Monkey

BackGround:

Lysine-specific demethylase 1 (LSD1; also known as AOF2 and BHC110) is a nuclear amine oxidase homolog that acts as a histone demethylase and transcription co-factor. Gene activation and repression is specifically regulated by the methylation state of distinct histone protein lysine residues. For example, methylation of histone H3 at Lys4 facilitates transcriptional activation by coordinating the recruitment of BPTF, a component of the NURF chromatin remodeling complex, and WDR5, a component of multiple histone methyltransferase complexes. In contrast, methylation of histone H3 at Lys9 facilitates transcriptional repression by recruiting HP1. LSD1 is a component of the CoREST transcriptional co-repressor complex that also contains CoREST, CtBP, HDAC1 and HDAC2. As part of this complex, LSD1 demethylates mono-methyl and di-methyl histone H3 at Lys4 through a FAD-dependent oxidation reaction to facilitate neuronal-specific gene repression in non-neuronal cells. In contrast, LSD1 associates with androgen receptor in human prostate cells to demethylate mono-methyl and di-methyl histone H3 at Lys9 and facilitate androgen receptor-dependent transcriptional activation. Therefore, depending on gene context LSD1 can function as either a transcriptional co-repressor or co-activator. LSD1 activity is inhibited by the amine oxidase inhibitors pargyline, deprenyl, clorgyline and tranlylcypromine.

Product:

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.

Molecular Weight:

~ 110 kDa

Swiss-Prot:

O60341

Purification&Purity:

The antibody was purified by immunogen affinity chro-

matography.

Applications:

WB (1/500 - 1/1000), IF/ICC (1/50 - 1/100), IP (1/10 - 1/50)

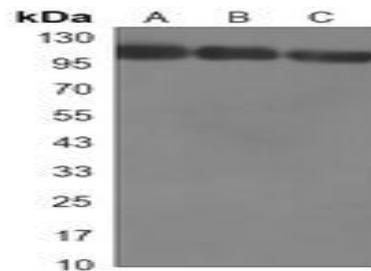
Storage&Stability:

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

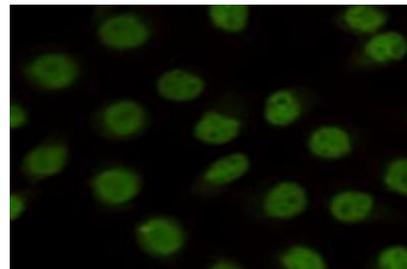
Specificity:

Recognizes endogenous levels of KDM1A protein.

DATA:



Western blot analysis of KDM1A expression in HeLa (A), HCT116 (B), COS7 (C) whole cell lysates.



Immunofluorescent analysis of KDM1A staining in HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark.

Note:

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

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