



E91156

KDM1A Polyclonal Antibody

- Catalog Number:** E91156
- Amount:** 100ul
- 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 cofactor (1). 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 (2,3). In contrast, methylation of histone H3 at Lys9 facilitates transcriptional repression by recruiting HP1 (4,5). 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 (1,6,7). 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 (8). 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 tranylcypromine (8).
- Species:** Rabbit
- Isotype:** IgG
- Storage/Stability:** Store at -20oC or -80oC. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
- Synonyms:** KDM1;AOF2;BHC110;KIAA0601;LSD1 ; KDM1A
- Immunogen:** Recombinant protein of human KDM1A
- Purification:** Affinity purification
- Reactivity:** H M R
- Applications:** WB IHC
- Molecular Weight:** 95kDa
- Swiss-Prot No. :** O60341
- Gene ID:** 23028
- References:** 1. Shi, Y. et al. (2004) Cell 119, 941-953. 2. Wysocka, J. et al. (2006) Nature 442, 86-90. 3. Wysocka, J. et al. (2005) Cell 121, 859-872. 4. Jacobs, S.A. and Khorasanizadeh, S. (2002) Science 295, 2080-2083. 5. Nielsen, P.R. et al. (2002) Nature 416, 103-107. 6. Shi, Y.J. et al. (2005) Mol. Cell 19, 857-864. 7. Lee, M.G. et al. (2005) Nature 437, 432-435. 8. Metzger, E. et al. (2005) Nature 437, 436-439.

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