

# AOF1 Antibody

Purified Mouse Monoclonal Antibody

Catalog # AO2105a

## Product Information

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| <b>Application</b>       | WB, IHC, FC, ICC, E  |
| <b>Primary Accession</b> | <a href="#">Q8NB78</a>   |
| <b>Reactivity</b>        | Human  |
| <b>Host</b>              | Mouse  |
| <b>Clonality</b>         | Monoclonal   |
| <b>Clone Names</b>       | 5E10C1   |
| <b>Isotype</b>           | IgG1   |
| <b>Calculated MW</b>     | 92098  |
| <b>Description</b>       | Flavin-dependent histone demethylases, such as KDM1B, regulate histone lysine methylation, an epigenetic mark that regulates gene expression and chromatin function. |
| <b>Immunogen</b>         | Purified recombinant fragment of human AOF1 (AA: 6-129) expressed in E. Coli.  |
| <b>Formulation</b>       | Purified antibody in PBS with 0.05% sodium azide   |

## Additional Information

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| <b>Gene ID</b>     | 221656  |
| <b>Other Names</b> | Lysine-specific histone demethylase 1B, 1.-.-., Flavin-containing amine oxidase domain-containing protein 1, Lysine-specific histone demethylase 2, KDM1B, AOF1, C6orf193, LSD2 |
| <b>Dilution</b>    | WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 FC~~1:10~50 ICC~~N/A E~~1/10000  |
| <b>Storage</b>     | Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.  |
| <b>Precautions</b> | AOF1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.   |

## Protein Information

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| <b>Name</b>     | KDM1B ( <a href="#">HGNC:21577</a> )   |
| <b>Function</b> | Histone demethylase that demethylates 'Lys-4' of histone H3, a specific tag for epigenetic transcriptional activation, thereby acting as a corepressor. Required for de novo DNA methylation of a subset of imprinted genes during |

oogenesis. Acts by oxidizing the substrate by FAD to generate the corresponding imine that is subsequently hydrolyzed. Demethylates both mono- and di-methylated 'Lys-4' of histone H3. Has no effect on tri-methylated 'Lys-4', mono-, di- or tri-methylated 'Lys-9', mono-, di- or tri-methylated 'Lys-27', mono-, di- or tri-methylated 'Lys-36' of histone H3, or on mono-, di- or tri-methylated 'Lys-20' of histone H4. Alone, it is unable to demethylate H3K4me on nucleosomes and requires the presence of GLYR1 to achieve such activity, they form a multifunctional enzyme complex that modifies transcribed chromatin and facilitates Pol II transcription through nucleosomes (PubMed:[30970244](#)).

#### Cellular Location

Nucleus. Chromosome. Note=Found in actively RNAPolIII- transcribed gene bodies.

## References

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1.Cell Res. 2013 Feb;23(2):225-41.2.Nature. 2009 Sep 17;461(7262):415-8.

## Images

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