10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

AOF1 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO2105a

Product Information

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

Additional Information

Gene ID	221656
Other Names	Lysine-specific histone demethylase 1B, 1.-.-.-, Flavin-containing amine oxidase domain-containing protein 1, Lysine-specific histone demethylase 2, KDM1B, AOF1, C6orf193, LSD2
Dilution	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 FC~~1:10~50 ICC~~N/A E~~1/10000
Storage	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.
Precautions	AOF1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	KDM1B (HGNC:21577)
Function	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 RNAPolII- transcribed gene bodies.

References

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

Images

