

**Anti-LSD2 / AOF1 Monoclonal Antibody**  
Catalog # ABO14504**Specification****Anti-LSD2 / AOF1 Monoclonal Antibody - Product Information**

Application	WB, IF, ICC, IP, FC
Primary Accession	<a href="#">Q8NB78</a>
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid

**Description**

Anti-LSD2 / AOF1 Monoclonal Antibody . Tested in WB, ICC/IF, IP, Flow Cytometry applications. This antibody reacts with Human, Mouse, Rat.

**Anti-LSD2 / AOF1 Monoclonal Antibody - Additional Information**

Gene ID 221656

**Other Names**

Lysine-specific histone demethylase 2, 1.14.99.66, Flavin-containing amine oxidase domain-containing protein 1, Lysine-specific histone demethylase 1B, KDM1B ([http://www.genenames.org/cgi-bin/gene\\_symbol\\_report?hgnc\\_id=21577](http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=21577))  
target="\_blank">HGNC:21577</a>)

**Application Details**

WB 1:500-1:2000<br>ICC/IF 1:50-1:200<br>IP 1:60<br>FC 1:50

**Contents**

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

**Immunogen**

A synthesized peptide derived from human LSD2 / AOF1 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.

**Purification**

Affinity-chromatography

**Storage**

Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

**Anti-LSD2 / AOF1 Monoclonal Antibody - 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:<a href="http://www.uniprot.org/citations/30970244" target="\_blank">30970244</a>).

### Cellular Location

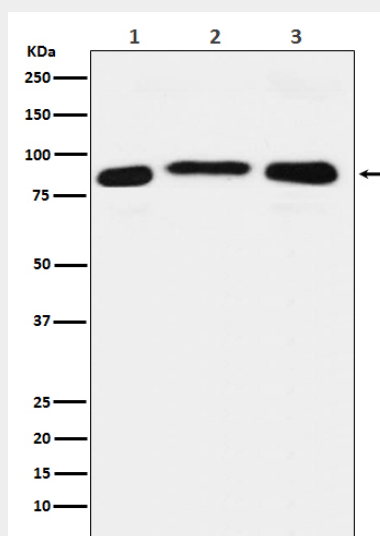
Nucleus. Chromosome. Note=Found in actively RNAPolIII- transcribed gene bodies.

## Anti-LSD2 / AOF1 Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## Anti-LSD2 / AOF1 Monoclonal Antibody - Images



Western blot analysis of LSD2 / AOF1 expression in (1) HeLa cell lysate; (2) RAW264.7 cell lysate; (3) PC12 cell lysate.

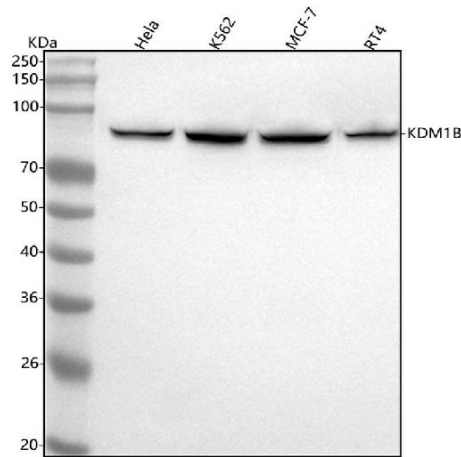


Figure 1. Western blot analysis of KDM1B using anti-KDM1B antibody (M08071).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human HeLa whole cell lysates,

Lane 2: human K562 whole cell lysates,

Lane 3: human MCF-7 whole cell lysates,

Lane 4: human RT4 whole cell lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-KDM1B antigen affinity purified monoclonal antibody (Catalog # M08071) at 1:500 overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:500 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for KDM1B at approximately 93 kDa. The expected band size for KDM1B is at 93 kDa.