abcam

Product datasheet

Anti-KDM1/LSD1 antibody [3D12] ab90966

敲除验证

2 References 4 图像

概述

产品名称	Anti-KDM1/LSD1抗体[3D12]
描述	小鼠单克隆抗体[3D12] to KDM1/LSD1
宿主	Mouse
经测试应用	**适用于:** ICC/IF, Flow Cyt, WB
种属反应性	**与反应:** Human
免疫原	Recombinant fragment corresponding to Human KDM1/LSD1. Database link: O60341
阳性对照	HeLa, NIH3T3, mouse P19 and human LNCaP. ICC/IF: HAP1-KDM1A cells.
常规说明	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
存储溶液	Constituent: Tissue culture supernatant
纯度	Tissue culture supernatant
克隆	单克隆
克隆编号	3D12
同种型	IgG1

应用

The Abpromise guarantee **Abpromise™承诺保证使用ab90966于以下的经测试应用**

“应用说明”部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
ICC/IF		Use a concentration of 1 µg/ml.
Flow Cyt		Use 1-2µg for 10^6 cells. **ab170190** - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
WB		1/1000. Predicted molecular weight: 93 kDa.

靶标

功能 Histone demethylase that demethylates both 'Lys-4' (H3K4me) and 'Lys-9' (H3K9me) of histone H3, thereby acting as a coactivator or a corepressor, depending on the context. Acts by oxidizing the substrate by FAD to generate the corresponding imine that is subsequently hydrolyzed. Acts as a corepressor by mediating demethylation of H3K4me, a specific tag for epigenetic transcriptional activation. Demethylates both mono- (H3K4me1) and di-methylated (H3K4me2) H3K4me. May play a role in the repression of neuronal genes. Alone, it is unable to demethylate H3K4me on nucleosomes and requires the presence of RCOR1/CoREST to achieve such activity. Also acts as a coactivator of androgen receptor (ANDR)-dependent transcription, by being recruited to ANDR target genes and mediating demethylation of H3K9me, a specific tag for epigenetic transcriptional repression. The presence of PRKCB in ANDR-containing complexes, which mediates phosphorylation of 'Thr-6' of histone H3 (H3T6ph), a specific tag that prevents demethylation H3K4me, prevents H3K4me demethylase activity of KDM1A. Demethylates di-methylated 'Lys-370' of p53/TP53 which prevents interaction of p53/TP53 with TP53BP1 and represses p53/TP53-mediated transcriptional activation. Demethylates and stabilizes the DNA methylase DNMT1. Required for gastrulation during embryogenesis.

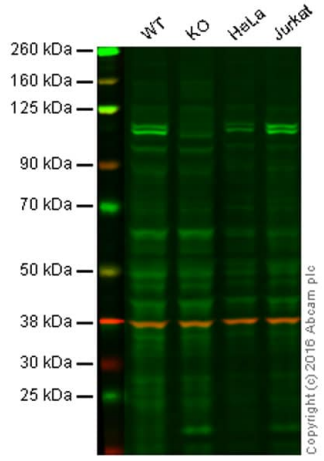
组织特异性 Ubiquitously expressed.

序列相似性 Belongs to the flavin monoamine oxidase family.
Contains 1 SWIRM domain.

结构域 The SWIRM domain may act as an anchor site for a histone tail.

细胞定位 Nucleus.

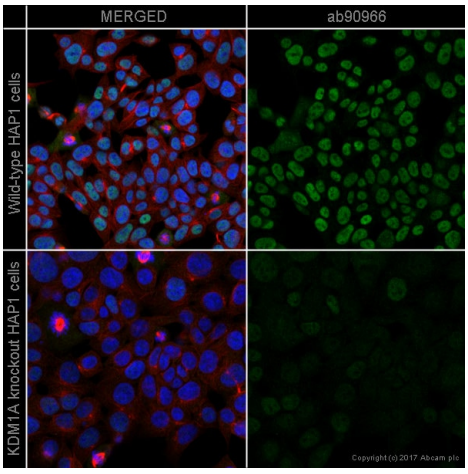
图片



Western blot - Anti-KDM1 / LSD1 antibody [3D12] - ChIP Grade (ab90966)

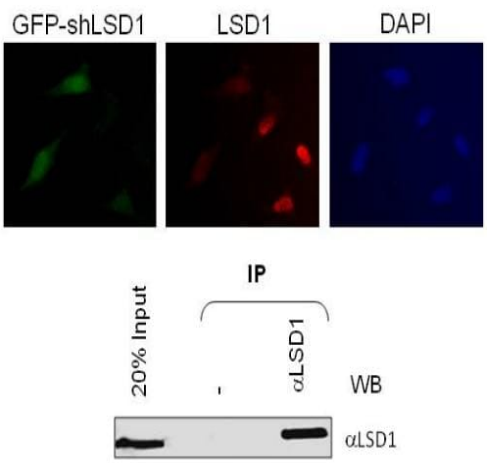
Lane 1: Wild-type HAP1 cell lysate (20 µg)
Lane 2: KDM1 / LSD1 knockout HAP1 cell lysate (20 µg)
Lane 3: HeLa cell lysate (20 µg)
Lane 4: Jurkat cell lysate (20 µg)
Lanes 1 - 4: Merged signal (red and green). Green - ab90966 observed at 110 kDa. Red - loading control, **ab181602**, observed at 37 kDa.

ab90966 was shown to specifically recognize KDM1/LSD1 in wild-type HAP1 cells along with additional cross reactive bands. No band was observed when KDM1/LSD1 knockout samples were used. Wild-type and KDM1 / LSD1 knockout samples were subjected to SDS-PAGE. ab90966 and **ab181602** (loading control to GAPDH) were diluted to 1/500 and 1/10,000 respectively and incubated overnight at 4°C. Blots were developed with Goat anti-Mouse IgG H&L (IRDye® 800CW) preadsorbed (**ab216772**) and Goat Anti-Rabbit IgG H&L (IRDye® 680RD) preadsorbed (**ab216777**) secondary antibodies at 1/10,000 dilution for 1hr at room temperature before imaging.



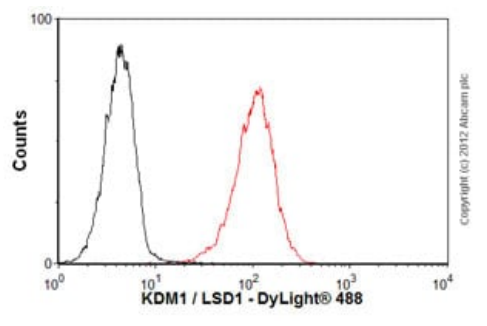
Immunocytochemistry/ Immunofluorescence - Anti-KDM1 / LSD1 antibody [3D12] - ChIP Grade (ab90966)

ab90966 staining KDM1A in wild-type HAP1 cells (top panel) and KDM1A knockout HAP1 cells (bottom panel). The cells were fixed with 4% formaldehyde (10min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with ab90966 at 1µg/ml concentration and **ab202272** at 1/250 dilution (shown in pseudo colour red) overnight at +4°C, followed by a further incubation at room temperature for 1h with a goat secondary antibody to Mouse IgG (Alexa Fluor® 488) (**ab150117**) at 2 µg/ml (shown in green). Nuclear DNA was labelled in blue with DAPI.



Immunocytochemistry/ Immunofluorescence - Anti-KDM1 / LSD1 antibody [3D12] - ChIP Grade (ab90966)

Ab90966 was tested for immunostaining (upper panel) and IP-Western (lower panel). For immunostaining analysis, HeLa cells were transfected with a shLSD1 plasmid also encoding GFP for two days followed by immunostaining using ab90966. For IP-Western analysis, HeLa nuclear extracts (~200ug for each reaction) were immunoprecipitated with or without 0.5ug LSD antibody followed by Western analysis at a dilution of 1:50.



Flow Cytometry - Anti-KDM1 / LSD1 antibody [3D12] - ChIP Grade (ab90966)

Overlay histogram showing HeLa cells stained with ab90966 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab90966, 1µg/1x10^6 cells) for 30 min at 22ºC. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (**ab96879**) at 1/500 dilution for 30 min at 22ºC. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (**ab91353**, 2µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in HeLa cells fixed with 4% paraformaldehyde (10 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise,

please visit **https://www.abcam.cn/abpromise** or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors