abcam

ab243641

Anti-KDM3A / JHDM2A antibody [EPR18875-106]

Recombinant | RabMAb | KO Validated | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR18875-106
Purification technique	Affinity purification Protein A
Concentration	0.49 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Mouse
Dilution info	1/500
Notes	-

Species	Rat

Dilution info	1/500
Notes	-

Species	Human
Dilution info	1/500
Notes	-

IP

Tested

Species	Human
Dilution info	1/30
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

ChIP

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Mouse
Dilution info	1/1000
Notes	-

Species	Rat
Dilution info	1/1000
Notes	-

Species	Human
Dilution info	1/1000
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/500
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information KDM3A

Function	Histone demethylase that specifically demethylates 'Lys-9' of histone H3, thereby playing a central role in histone code. Preferentially demethylates mono- and dimethylated H3 'Lys-9' residue, with a preference for dimethylated residue, while it has weak or no activity on trimethylated H3 'Lys-9'. Demethylation of Lys residue generates formaldehyde and succinate. Involved in hormone-dependent transcriptional activation, by participating in recruitment to androgen-receptor target genes, resulting in H3 'Lys-9' demethylation and transcriptional activation. Involved in spermatogenesis by regulating expression of target genes such as PRM1 and TNP1 which are required for packaging and condensation of sperm chromatin. Involved in obesity resistance through regulation of metabolic genes such as PPARA and UCP1.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

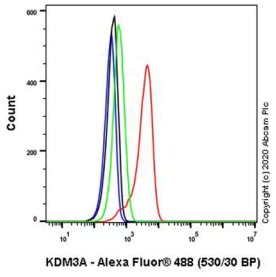
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

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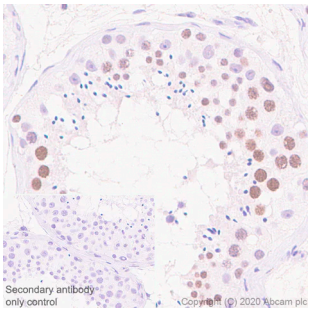
11 product images



Flow Cytometry (Intracellular) - Anti-KDM3A / JHDM2A antibody [EPR18875-106] (ab243641)

KDM3A / JHDM2A Flow Cytometry (Intracellular) staining using rabbit Anti-KDM3A / JHDM2A antibody

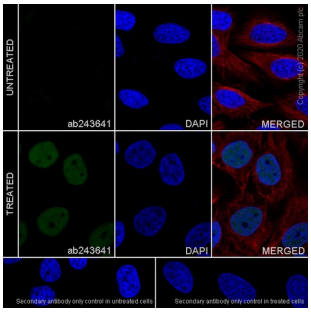
Intracellular flow cytometric analysis of 4% paraformaldehyde fixed, 90% methanol permeabilized HeLa cells treated with 1mM DFO for 24h (Red) / Untreated control (Green) labelling KDM3A / JHDM2A with ab243641 at 1/500 dilution (0.1ug) (Red) / (Green) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-KDM3A / JHDM2A antibody [EPR18875-106] (ab243641)

Immunohistochemical analysis of paraffin-embedded Human testis tissue labeling KDM3A / JHDM2A with ab243641 at 1/500 dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Nuclear staining on human testis (PMID: 25071150). The section was incubated with ab243641 for 30 mins at room temperature.T he immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).

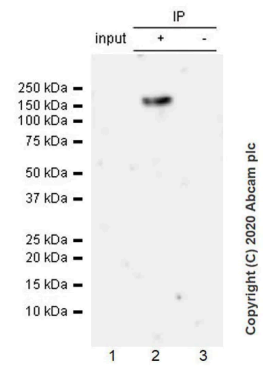
Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins.



Immunocytochemistry/ Immunofluorescence - Anti-KDM3A / JHDM2A antibody [EPR18875-106] (ab243641)

KDM3A / JHDM2A Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-KDM3A / JHDM2A antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized HeLa cells labelling KDM3A / JHDM2A with ab243641 at 1/100 dilution, followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (Green). Confocal image showing nuclear staining in HeLa cell line treatment with DFO (1mM) for 24h. ab195889 Anti-alpha Tubulin antibody (Alexa Fluor® 594) was used to counterstain tubulin at 1/1000 dilution (Red). The Nuclear counterstain was DAPI (Blue).
Secondary antibody only control: Secondary antibody is ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.



Immunoprecipitation - Anti-KDM3A / JHDM2A antibody [EPR18875-106] (ab243641)

KDM3A / JHDM2A was immunoprecipitated from 0.35 mg Ramos (human Burkitt's lymphoma B lymphocyte), whole cell lysate with ab243641 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab243641 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP)(ab131366) was used at 1/5000 dilution.
Lane 1: Ramos (human Burkitt's lymphoma B lymphocyte), whole cell lysate 10 ug

Lane 2: ab243641 IP in Ramos whole cell lysate

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab243641 in Ramos whole cell lysate

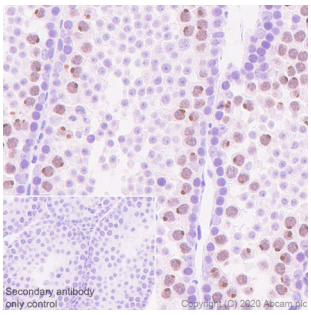
Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 3 minutes.

All lanes:
Immunoprecipitation - Anti-KDM3A / JHDM2A antibody [EPR18875-106] (ab243641)

Predicted band size: 147 kDa

Observed band size: 147 kDa

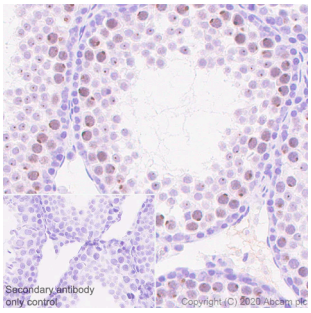


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-KDM3A / JHDM2A antibody [EPR18875-106] (ab243641)

KDM3A / JHDM2A Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-KDM3A / JHDM2A antibody

Immunohistochemical analysis of paraffin-embedded Mouse testis tissue labeling KDM3A / JHDM2A with ab243641 at 1/500 dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Positive staining on mouse testis (PMID: 17943087). The section was incubated with ab243641 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).

Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins.

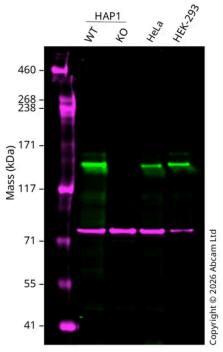


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-KDM3A / JHDM2A antibody [EPR18875-106] (ab243641)

KDM3A / JHDM2A Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-KDM3A / JHDM2A antibody

Immunohistochemical analysis of paraffin-embedded Rat testis tissue labeling KDM3A / JHDM2A with ab243641 at 1/500 dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Positive staining on rat testis (PMID: 17943087). The section was incubated with ab243641 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.
Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).

Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins.



Western blot - Anti-KDM3A / JHDM2A antibody [EPR18875-106] (ab243641)

KDM3A / JHDM2A Western blot staining using rabbit Anti-KDM3A / JHDM2A antibody

Western blot: Anti-KDM3A / JHDM2A antibody [EPR18875-106] ab243641 staining at 1/1000 dilution, shown in green; Mouse anti-CANX ab238078 loading control staining at 1/20000 dilution, shown in magenta. A band was observed at 147 kDa in Wild-type HAP1 cell lysates with no signal observed at this size in KDM3A knockout HAP1 cell line. To generate this image, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3% Milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit 800CW and Goat anti-Mouse 680RD at 1/20,000 dilution.
All lanes:
Western blot - Anti-KDM3A / JHDM2A antibody [EPR18875-106] (ab243641) at 1/1000 dilution

Lane 1:

Wild-type HAP1 cell lysates at 20 µg

Lane 2:
KDM3A knockout HAP1 cell lysates at 20 µg

Lane 3:
HeLa cell lysates at 20 µg

Lane 4:
HEK-293 cell lysates at 20 µg

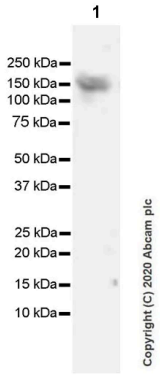
Secondary

All lanes:
Goat anti-Rabbit 800CW & Goat anti-Mouse 680RD at 1/20000 dilution

Performed under reducing conditions.

Predicted band size: 147 kDa

Observed band size: 147 kDa



Western blot - Anti-KDM3A / JHDM2A antibody [EPR18875-106] (ab243641)

KDM3A / JHDM2A Western blot staining of Ramos (human Burkitts lymphoma B lymphocyte), whole cell lysate using rabbit Anti-KDM3A / JHDM2A antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.
This blot was developed using a higher sensitivity ECL substrate.

Exposure time: 3 minutes.

All lanes:
Western blot - Anti-KDM3A / JHDM2A antibody [EPR18875-106] (ab243641) at 1/1000 dilution

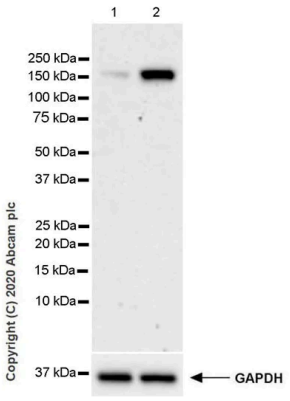
All lanes:
Ramos (human Burkitts lymphoma B lymphocyte), whole cell lysate at 30 µg

Secondary

All lanes:
VeriBlot for IP secondary antibody(HRP)(ab131366) at 1/5000 dilution

Predicted band size: 147 kDa

Observed band size: 147 kDa



Western blot - Anti-KDM3A / JHDM2A antibody [EPR18875-106] (ab243641)

KDM3A / JHDM2A Western blot staining using rabbit Anti-KDM3A / JHDM2A antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.
Fresh lysates were used in this WB.

Exposure time: 3 minutes.

All lanes:
Western blot - Anti-KDM3A / JHDM2A antibody [EPR18875-106] (ab243641) at 1/1000 dilution

Lane 1:
HeLa (human cervix adenocarcinoma epithelial cell), whole cell lysate at 20 µg

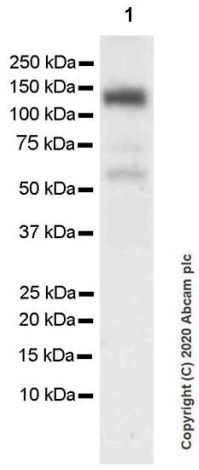
Lane 2:
HeLa treated with 1mM Deferoxamine mesylate (DFO) for 24 hours, whole cell lysate

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1/100000 dilution

Predicted band size: 147 kDa

Observed band size: 147 kDa



Western blot - Anti-KDM3A / JHDM2A antibody [EPR18875-106] (ab243641)

Blocking and diluting buffer and concentration: 5% NFDM/TBST.
This blot was developed using a higher sensitivity ECL substrate.

Fresh lysates were used in this WB.

The band at 60KD is the degragated fragment of KDM3A which is consistent with the literature(PMID: 31629659, 26728187).

Exposure time: 3 minutes.

All lanes:
Western blot - Anti-KDM3A / JHDM2A antibody [EPR18875-106] (ab243641) at 1/1000 dilution

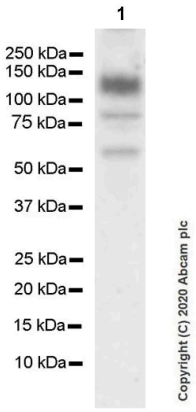
All lanes:
C6 (rat glial tumor glial cell), whole cell lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1/100000 dilution

Predicted band size: 147 kDa

Observed band size: 147 kDa, 60 kDa



Western blot - Anti-KDM3A / JHDM2A antibody [EPR18875-106] (ab243641)

Blocking and diluting buffer and concentration: 5% NFDM/TBST.
This blot was developed using a higher sensitivity ECL substrate.

Fresh lysates were used in this WB.

The bands at 90, 60KD are the degragated fragments of KDM3A which is consistent with the literature (PMID: 31629659, 26728187).

Exposure time: 3 minutes.

All lanes:
Western blot - Anti-KDM3A / JHDM2A antibody [EPR18875-106] (ab243641) at 1/1000 dilution

All lanes:
NIH/3T3 (mouse embryonic fibroblast), whole cell lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1/100000 dilution

Predicted band size: 147 kDa

Observed band size: 147 kDa, 60 kDa, 90 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.