# abcam

### Product datasheet

## Anti-KDM6A / UTX antibody [EPR23203-211] ab253183





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#### Overview

**Product name** Anti-KDM6A / UTX antibody [EPR23203-211]

**Description** Rabbit monoclonal [EPR23203-211] to KDM6A / UTX

**Host species** Rabbit

**Tested applications** Suitable for: Flow Cyt (Intra), WB

Unsuitable for: ChIP,ICC/IF,IHC-P or IP

Reacts with: Mouse, Human Species reactivity

Recombinant fragment. This information is proprietary to Abcam and/or its suppliers. **Immunogen** 

Positive control WB: HAP1, HEK-293T, NIH/3T3 and F9 whole cell lysates. Flow Cyt (intra): HAP1 and F9 cells.

**General notes** 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 production

For more information see here.

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

#### **Properties**

**Form** Liquid

Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long Storage instructions

term. Avoid freeze / thaw cycle.

Storage buffer Preservative: 0.01% Sodium azide

Constituents: 59.94% PBS, 40% Glycerol, 0.05% BSA

**Purity** Protein A purified

Clonality Monoclonal

Clone number EPR23203-211

Isotype lgG

#### **Applications**

#### The Abpromise guarantee

Our Abpromise guarantee covers the use of ab253183 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/50.
WB		1/1000. Detects a band of approximately 160 kDa (predicted molecular weight: 154 kDa).

#### **Application notes**

Is unsuitable for ChIP,ICC/IF,IHC-P or IP.

#### **Target**

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Histone demethylase that specifically demethylates 'Lys-27' of histone H3, thereby playing a central role in histone code. Demethylates trimethylated and dimethylated but not monomethylated H3 'Lys-27'. Plays a central role in regulation of posterior development, by regulating HOX gene expression. Demethylation of 'Lys-27' of histone H3 is concomitent with methylation of 'Lys-4' of histone H3, and regulates the recruitment of the PRC1 complex and monoubiquitination of histone H2A.

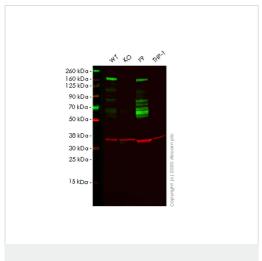
#### Sequence similarities

Belongs to the UTX family. Contains 1 JmjC domain. Contains 8 TPR repeats.

#### **Cellular localization**

Nucleus.

#### **Images**



Western blot - Anti-KDM6A / UTX antibody [EPR23203-211] (ab253183)

**All lanes :** Anti-KDM6A / UTX antibody [EPR23203-211] (ab253183) at 1/1000 dilution ((0.502 μg/ml))

Lane 1: Wild-type HAP1 whole cell lysate

Lane 2: KDM6A knockout HAP1 whole cell lysate

Lane 3: F9 (mouse embryonal carcinoma epithelial cell), whole cell

lysate

Lane 4: THP-1 (human monocytic leukemia monocyte), whole cell

lysate

Lysates/proteins at 20 µg per lane.

#### Secondary

All lanes: Goat Anti-Rabbit lgG H&L (IRDye® 800CW)
(ab216773) and Goat Anti-Mouse lgG H&L (IRDye® 680RD)

(ab216776) at 1/20000 dilution

Predicted band size: 154 kDa Observed band size: 160 kDa

Blocking and diluting buffer and concentration: Intercept® (TBS) Blocking Buffer diluted with an equal volume of 0.1% TBS.

Lanes 1-4: Merged signal (red and green). Green - ab253183 observed at 160 kDa. Red - loading control <u>ab8245</u> (Mouse monoclonal [6C5] to GAPDH) observed at 36 kDa.

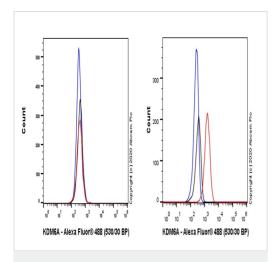
ab253183 Anti-KDM6A antibody [EPR23203-211] was shown to react with KDM6A in HAP1 wild-type cells in Western blot. Loss of signal was observed when KDM6A knockout sample was used. Wild-type and KDM6A knockout samples were subjected to SDS-PAGE.

ab253183 and Anti-GAPDH antibody [6C5] - Loading Control (ab8245) were incubated at room temperature for 2. 5 hours at 1/1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye<sup>®</sup> 800CW) preadsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye<sup>®</sup> 680RD) preadsorbed (ab216776) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.

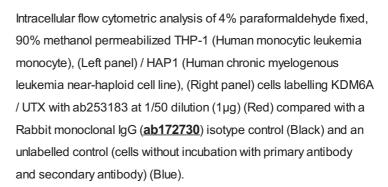
Negative control: THP-1 (PMID: 19330029).

The expression profile and molecular weight observed is consistent with what has been described in the literature (PMID: 19330029).

The the bands between 50kDa and 150kDa are caused by degradation based on the result of fresh lysates.

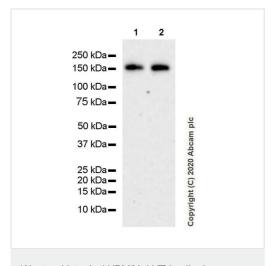


Flow Cytometry (Intracellular) - Anti-KDM6A / UTX antibody [EPR23203-211] (ab253183)



A Goat anti rabbit lgG (Alexa Fluor<sup>®</sup> 488, <u>ab150077</u>) at 1/2000 dilution was used as the secondary antibody.

Negative control: THP-1.



Western blot - Anti-KDM6A / UTX antibody [EPR23203-211] (ab253183)

**All lanes :** Anti-KDM6A / UTX antibody [EPR23203-211] (ab253183) at 1/1000 dilution ((0.502 µg/ml))

**Lane 1 :** HEK-293T (human embryonic kidney epithelial cell), whole cell lysate

Lane 2: NIH/3T3 (mouse embryonic fibroblast), whole cell lysate

Lysates/proteins at 20 µg per lane.

#### Secondary

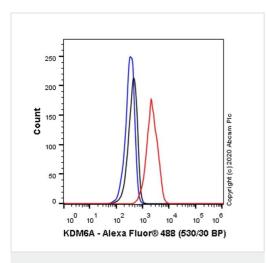
**All lanes :** Goat Anti-Rabbit lgG, (H+L), Peroxidase conjugated (ab97051) at 1/100000 dilution

Predicted band size: 154 kDa Observed band size: 160 kDa

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

Fresh lysates were used in this WB.

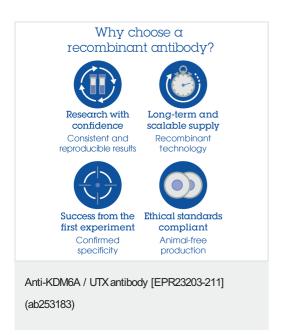
Exposure time: 3 minutes.



Flow Cytometry (Intracellular) - Anti-KDM6A / UTX antibody [EPR23203-211] (ab253183)

Intracellular flow cytometric analysis of 4% paraformaldehyde fixed, 90% methanol permeabilized F9 (Mouse embryonal carcinoma epithelial cell) cells labelling KDM6A / UTX with ab253183 at 1/500 dilution (0.1µg) (Red) compared with a Rabbit monoclonal IgG (ab172730) isotype control (Black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue).

A Goat anti rabbit lgG (Alexa Fluor<sup>®</sup> 488, <u>ab150077</u>) at 1/2000 dilution was used as the secondary antibody.



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