abcam

Product datasheet

Alexa Fluor® 488 Anti-KDM2A antibody [EPR18602] ab225366

Recombinant RabMAb

2 Images

Overview

Product name Alexa Fluor® 488 Anti-KDM2A antibody [EPR18602]

Description Alexa Fluor® 488 Rabbit monoclonal [EPR18602] to KDM2A

Host species Rabbit

Conjugation Alexa Fluor® 488, Ex: 495nm, Em: 519nm

Tested applications Suitable for: ICC/IF Species reactivity Reacts with: Human

Predicted to work with: Mouse, Rat

Synthetic peptide. This information is proprietary to Abcam and/or its suppliers. **Immunogen**

Positive control ICC/IF: HeLa 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**.

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Properties

Form Liquid

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

term. Avoid freeze / thaw cycle. Stable for 12 months at -20°C. Store In the Dark.

Storage buffer pH: 7.40

Preservative: 0.02% Sodium azide

Constituents: 30% Glycerol (glycerin, glycerine), 1% BSA, PBS

Purity Protein A purified

Clonality Monoclonal Clone number EPR18602

Isotype lgG

Applications

The Abpromise guarantee

Our Abpromise guarantee covers the use of ab225366 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
ICC/IF		1/1000. This product gave a positive signal in HeLa cells fixed with 4% formaldehyde (10 min)

Target

Function

Histone demethylase that specifically demethylates 'Lys-36' of histone H3, thereby playing a central role in histone code. Preferentially demethylates dimethylated H3 'Lys-36' residue while it has weak or no activity for mono- and tri-methylated H3 'Lys-36'. May also recognize and bind to some phosphorylated proteins and promote their ubiquitination and degradation. Required to maintain the heterochromatic state. Associates with centromeres and represses transcription of small non-coding RNAs that are encoded by the clusters of satellite repeats at the centromere. Required to sustain centromeric integrity and genomic stability, particularly during mitosis.

Tissue specificity

Widely expressed, with highest levels in brain, testis and ovary, followed by lung.

Sequence similarities

Belongs to the JHDM1 histone demethylase family.

Contains 1 CXXC-type zinc finger.

Contains 1 F-box domain. Contains 1 JmjC domain.

Contains 6 LRR (leucine-rich) repeats.

Contains 1 PHD-type zinc finger.

Domain

The JmjC domain mediates demethylation activity and is required for satellite silencing.

The CXXC zinc finger preferentially recognizes nonmethylated CpG DNA, and binding is blocked

when the CpG DNA is methylated.

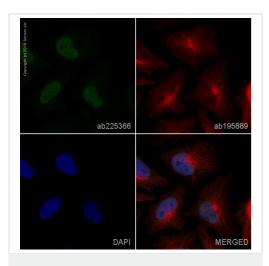
Post-translational modifications

Phosphorylated upon DNA damage, probably by ATM or ATR.

Cellular localization

Nucleus > nucleoplasm. Punctate expression throughout the nucleoplasm and enriched in the perinucleolar region. Specifically nucleates at CpG islands where it's presence results in chromatin depleted in H3K36me2.

Images



Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 488 Anti-KDM2A antibody [EPR18602] (ab225366) ab225366 staining KDM2A in HeLa cells. The cells were fixed with 4% formaldehyde (10 min), 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 overnight at +4°C with ab225366 at 1/1000 dilution (shown in green) and ab195889, Mouse monoclonal to alpha Tubulin (Alexa Fluor[®] 594), at 1/250 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



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