

AbFlex[®] KDM5A antibody (rAb)

Catalog Nos: 91211, 91212

RRID: AB_2793805

Isotype: IgG2a

Application(s): ChIP-Seq, WB

Reactivity: Human

Quantities: 100 µg, 10 µg

Purification: Protein A Chromatography

Host: Mouse

Concentration: 1 µg/µl

Molecular Weight: 196 kDa

Background: AbFlex[®] antibodies are recombinant antibodies (rAbs) that have been generated using defined DNA sequences to produce highly specific, reproducible antibodies. Each AbFlex antibody contains a 6xHis Tag, a Biotinylation Tag for enzymatic biotin conjugation using the biotin ligase, BirA, and a sortase recognition motif (LPXTG) to attach a variety of labels directly to the antibody including fluorophores, enzymatic substrates (HRP, AP), peptides, drugs as well as solid supports.

KDM5A Lysine (K)-specific demethylase 5A (KDM5A), also known as Jumonji, AT rich interactive domain 1A (JARID1A), is a histone demethylase that specifically demethylates lysine 4 of histone H3 (H3K4), thereby playing a central role in defining the histone code. KDM5A demethylates trimethylated and dimethylated, but not monomethylated H3K4. It does not demethylate histone H3K9, H3K27, H3K36, H3K79 or H4K20. KDM5A may function to stimulate transcription mediated by nuclear receptors and may be involved in transcriptional regulation of HOX proteins during cell differentiation. Also, KDM5A may be involved in the transcriptional repression of cytokines such as CXCL12. It has been shown to bind directly with the Retinoblastoma (pRb) protein which regulates cell proliferation. KDM5A also interacts with Rhombotin-2 which functions distinctly in erythropoiesis and in T-cell leukemogenesis.

Immunogen: This antibody was raised against full length, recombinant human KDM5A.

Buffer: Purified IgG in 140 mM Hepes, pH 7.5, 70 mM NaCl, 32 mM NaOAc, 0.035% sodium azide, 30% glycerol. Sodium azide is highly toxic.

Application Notes:

Applications Validated by Active Motif:

ChIP-Seq: 4 µg per ChIP

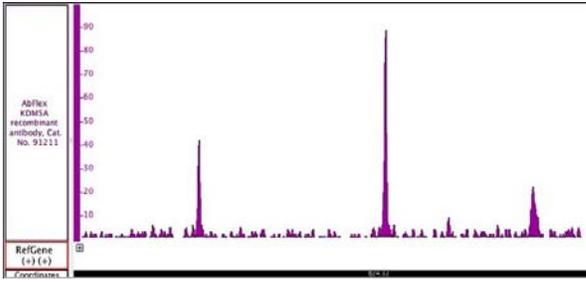
WB*: 0.5 - 2 µg/mL

For optimal results, we recommend the addition of 0.1% Tween 20 to all blocking solutions to reduce background. Individual optimization may be required.

*Note: many chromatin-bound proteins are not soluble in a low salt nuclear extract and fractionate to the pellet. Therefore, we recommend a High Salt / Sonication Protocol when preparing nuclear extracts for Western blot.

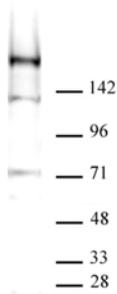
Storage and Guarantee: Some products may be shipped at room temperature. This will not affect their stability or performance. Avoid repeated freeze/thaw cycles by aliquoting items into single-use fractions for storage at -20°C for up to 2 years. Keep all reagents on ice when not in storage. This product is guaranteed for 12 months from date of receipt.

This product is for research use only and is not for use in diagnostic procedures.



AbFlex® KDM5A antibody (rAb) tested by ChIP-Seq

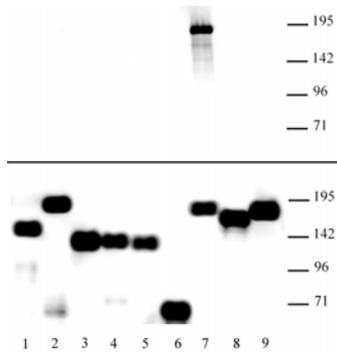
Chromatin immunoprecipitation (ChIP) was performed using the ChIP-IT® High Sensitivity Kit (Cat. No. 53040) with 25 µg of chromatin from human H727 lung cell chromatin 4 µg of AbFlex KDM5A antibody. ChIP DNA was sequenced on the Illumina NextSeq and 13 million sequence tags were mapped to identify KDM5A binding sites on chromosome 8.



AbFlex® KDM5A antibody (rAb) tested by Western blot.

40 µg of HeLa cell nuclear extract was run on SDS-PAGE and probed with AbFlex® KDM5A antibody at 2 µg/ml.

MW: 196 kDa



Specificity of AbFlex® KDM5A demonstrated by Western blot.

500 ng of various FLAG-tagged human full-length recombinant proteins was loaded per lane and probed with KDM5A antibody at 1 µg/ml (top panel) or FLAG antibody (bottom panel). KDM5A antibody only detects KDM5A protein; the FLAG antibody shows the presence of all proteins on the blot.

Lane 1: KDM3A (Cat. No. 31456). Lane 2: KDM3B (Cat. No. 31429). Lane 3: KDM4A (Cat. No. 31457). Lane 4: KDM4B (Cat. No. 31501). Lane 5: KDM4C (Cat. No. 31458). Lane 6: KDM4D (Cat. No. 31459). Lane 7: KDM5A (Cat. No. 31431). Lane 8: KDM5B (Cat. No. 31432). Lane 9: KDM5C (Cat. No. 31433).