

KDM5A Rabbit pAb

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Product Information

Application IHC-P, IHC-F, IF

Primary Accession P29375

Reactivity Rat, Pig, Rabbit, Dog, Horse

Host Rabbit
Clonality Polyclonal
Calculated MW 192095
Physical State Liquid

Immunogen KLH conjugated synthetic peptide derived from human KDM5A

Epitope Specificity 101-200/1690

Isotype IgG

Purity affinity purified by Protein A

Buffer 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.

SUBCELLULAR LOCATION Nucleus > nucleolus. Occupies promoters of genes involved in RNA

metabolism and mitochondrial function.

SIMILARITY Belongs to the JARID1 histone demethylase family. Contains 1 ARID domain.

Contains 1 JmjC domain. Contains 1 JmjN domain. Contains 3 PHD-type zinc

fingers.

Important Note This product as supplied is intended for research use only, not for use in

human, therapeutic or diagnostic applications.

Background Descriptions This gene encodes a member of the Jumonji, AT-rich interactive domain 1

(JARID1) histone demethylase protein family. The encoded protein plays a role in gene regulation through the histone code by specifically demethylating lysine 4 of histone H3. The encoded protein interacts with many other proteins, including retinoblastoma protein, and is implicated in the

transcriptional regulation of Hox genes and cytokines. This gene may play a

role in tumor progression. [provided by RefSeq, Aug 2013]

Additional Information

Gene ID 5927

Other Names Lysine-specific demethylase 5A, 1.14.11.67, Histone demethylase JARID1A,

Jumonji/ARID domain-containing protein 1A, Retinoblastoma-binding protein

2, RBBP-2, [histone H3]-trimethyl-L-lysine(4) demethylase 5A, KDM5A

(HGNC:9886)

Dilution IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500

Storage Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When

reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody

is stable for at least two weeks at 2-4 °C.

Protein Information

Name KDM5A (HGNC:9886)

Function Histone demethylase that specifically demethylates 'Lys-4' of histone H3,

thereby playing a central role in histone code. Does not demethylate histone H3 'Lys-9', H3 'Lys-27', H3 'Lys-36', H3 'Lys-79' or H4 'Lys-20'. Demethylates trimethylated and dimethylated but not monomethylated H3 'Lys-4'. Regulates specific gene transcription through DNA-binding on 5'-CCGCCC-3' motif (PubMed:18270511). May stimulate transcription mediated by nuclear receptors. Involved in transcriptional regulation of Hox proteins during cell differentiation (PubMed:19430464). May participate in transcriptional repression of cytokines such as CXCL12. Plays a role in the regulation of the circadian rhythm and in maintaining the normal periodicity of the circadian clock. In a histone demethylase-independent manner, acts as a coactivator of the CLOCK-BMAL1-mediated transcriptional activation of PER1/2 and other clock-controlled genes and increases histone acetylation at PER1/2 promoters by inhibiting the activity of HDAC1 (By similarity). Seems to act as a

transcriptional corepressor for some genes such as MT1F and to favor the

proliferation of cancer cells (PubMed: <u>27427228</u>).

Cellular Location Nucleus, nucleolus. Nucleus {ECO:0000250 | UniProtKB:Q3UXZ9}

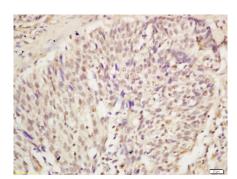
Note=Occupies promoters of genes involved in RNA metabolism and

mitochondrial function. {ECO:0000250 | UniProtKB:Q3UXZ9}

Background

This gene encodes a member of the Jumonji, AT-rich interactive domain 1 (JARID1) histone demethylase protein family. The encoded protein plays a role in gene regulation through the histone code by specifically demethylating lysine 4 of histone H3. The encoded protein interacts with many other proteins, including retinoblastoma protein, and is implicated in the transcriptional regulation of Hox genes and cytokines. This gene may play a role in tumor progression. [provided by RefSeq, Aug 2013]

Images



Tissue/cell: human laryngocarcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min; Incubation: Anti-KDM5A Polyclonal Antibody, Unconjugated(AP56474) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

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