

Active Recombinant Human KDM5A, FLAG-tagged

Cat. No. KDM5A-43H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human KDM5A (accession number NP_001036068.1) was expressed in Sf9, with an N-terminal FLAG tag.
Species	Human
Source	Sf9 Cells
Description	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.
Form	40 mM HEPES pH 7.4, 150 mM NaCl and 20% glycerol.
Bio-activity	H3K4me3 demethylase.
Molecular Mass	196.3 kDa

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Applications	Enzyme kinetics, inhibitor screening, and selectivity profiling.
Storage	Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage.
Concentration	1.4 mg/ml
GENE INFORMATION	
Gene Name	KDM5A lysine (K)-specific demethylase 5A [Homo sapiens]
Official Symbol	KDM5A
Synonyms	KDM5A; lysine (K)-specific demethylase 5A; JARID1A, jumonji, AT rich interactive domain 1A , Jumonji, AT rich interactive domain 1A (RBBP2 like) , RBBP2, retinoblastoma binding protein 2; lysine-specific demethylase 5A; histone demethylase JARID1A; retinoblastoma binding protein 2; retinoblastoma-binding protein 2; jumonji/ARID domain-containing protein 1A; Jumonji, AT rich interactive domain 1A (RBP2-like); Jumonji, AT rich interactive domain 1A (RBBP2-like); RBP2; RBBP2; RBBP-2; JARID1A;
Gene ID	5927
mRNA Refseq	NM_001042603
Protein Refseq	NP_001036068
MIM	180202
UniProt ID	P29375

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**Chromosome
Location**

12p11

Function

DNA binding; chromatin binding; metal ion binding; oxidoreductase activity; oxidoreductase activity, acting on paired donors, with incorporation or reduction of molecular oxygen, 2-oxoglutarate as one donor, and incorporation of one atom each of oxygen into both donors; oxidoreductase activity, acting on single donors with incorporation of molecular oxygen, incorporation of two atoms of oxygen; sequence-specific DNA binding transcription factor activity; zinc ion binding;

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