

Active Recombinant Human KDM4A, FLAG-tagged

Cat. No. KDM4A-50H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human KDM4A (accession number NP_055478.2) was expressed in Sf9 cells and contains an N-terminal FLAG tag with an observed molecular weight of 125.3 kDa.
Species	Human
Source	Sf9 Cells
Description	<p>KDM4A (lysine (K)-specific demethylase 4A), also known as JMJD2A (Jumonji Domain Containing 2A) is a nuclear protein that functions as a trimethylation-specific histone demethylase that preferentially demethylates trimethylated lysine 9 (K9me3) and lysine 36 (K36me3) residues of histone H3, converting these trimethylated histone residues to dimethylated form. KDM4A has no activity for mono- and dimethylated H3K9 and H3K36. KDM4A functions as a transcriptional repressor, participating in transcriptional repression of ASCL2 and E2F-responsive promoters via the recruitment of histone deacetylases and NCOR1, respectively. An additional KDM4A isoform, KDM4A Isoform 2, that lacks the N-terminal demethylase domain is crucial for muscle differentiation in promoting transcriptional activation of the MyoG gene by directing the removal of repressive chromatin marks at its promoter.</p>
Form	25 mM HEPES, pH 7.5, 150 mM NaCl and 5% glycerol.
Bio-activity	H3K9me3 and H3K36me3 demethylase.
Applications	Enzyme kinetics, inhibitor screening, and selectivity profiling.

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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 0.82 mg/ml

GENE INFORMATION

Gene Name [KDM4A lysine \(K\)-specific demethylase 4A \[Homo sapiens \]](#)

Official Symbol KDM4A

Synonyms KDM4A; lysine (K)-specific demethylase 4A; JMJD2, JMJD2A, jumonji domain containing 2 , jumonji domain containing 2A; lysine-specific demethylase 4A; JHDM3A; jumonji C domain containing histone demethylase 3A; KIAA0677; jumonji domain containing 2; jumonji domain containing 2A; jumonji domain-containing protein 2A; jumonji C domain-containing histone demethylase 3A; jmjC domain-containing histone demethylation protein 3A; JMJD2; JMJD2A;

Gene ID [9682](#)

mRNA Refseq [NM_014663](#)

Protein Refseq [NP_055478](#)

MIM [609764](#)

UniProt ID [O75164](#)

Chromosome Location 1p34.1

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Function

histone demethylase activity (H3-K36 specific); metal ion binding; oxidoreductase activity; oxidoreductase activity, acting on single donors with incorporation of molecular oxygen, incorporation of two atoms of oxygen; protein binding; zinc ion binding;

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