# Active Recombinant Human KDM3A, FLAG-tagged

**Cat. No.** KDM3A-48H **Lot. No.** (See product label)

## SPECIFICATION

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| **Product Overview** | Recombinant Human KDM3A (accession number NP_001140160.1) was expressed in Sf9 cells and contains an N-terminal FLAG tag with an observed molecular weight of 151.6 kDa. |
| **Species** | Human |
| **Source** | Sf9 Cells |
| **Description** | KDM3A (lysine (K)-specific demethylase 3A), also known as JMJD1A (Jumonji Domain Containing 1A) is a histone demethylase that preferentially demethylates mono- and dimethylated lysine 9 of histone H3, with a preference for the dimethylated residue. KDM3A has little or no activity on trimethylated lysine 9. KDM3A is involved in hormone-dependent transcriptional activation by participating in the recruitment to androgen-receptor target genes resulting in H3 lysine 9 demethylation and transcriptional activation. KDM3A is also involved in spermatogenesis where it regulates expression of target genes such as PRM1 and TMP1 which are required for packaging and condensation of sperm chromatin. KDM3A contributes to obesity resistance through its regulation of metabolic genes such as PPARα and UCP1. |
| **Form** | 25 mM HEPES, pH 7.5, 150 mM NaCl and 5% glycerol. |
| **Bio-activity** | H3K9me2 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** | 1 mg/ml |

## GENE INFORMATION

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| **Gene Name** | KDM3A lysine (K)-specific demethylase 3A [ Homo sapiens ] |
| **Official Symbol** | KDM3A |
| **Synonyms** | KDM3A; lysine (K)-specific demethylase 3A; JMJD1, JMJD1A, jumonji domain containing 1 , jumonji domain containing 1A; lysine-specific demethylase 3A; JHMD2A; jumonji C domain containing histone demethylase 2A; KIAA0742; TSGA; testis-specific protein A; jumonji domain containing 1; jumonji domain containing 1A; jumonji domain-containing protein 1A; jumonji C domain-containing histone demethylase 2A; jmjC domain-containing histone demethylation protein 2A; JMJD1; JHDM2A; JMJD1A; DKFZp686A24246; DKFZp686P07111; |
| **Gene ID** | 55818 |
| **mRNA Refseq** | NM_001146688 |
| **Protein Refseq** | NP_001140160 |
| **MIM** | 611512 |
| **UniProt ID** | Q9Y4C1 |
| **Chromosome** | 2p11.2 |

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| **Location** | |
| **Pathway** | Coregulation of Androgen receptor activity, organism-specific biosystem; |
| **Function** | androgen receptor binding; iron ion binding; metal ion binding; oxidoreductase activity; oxidoreductase activity, acting on single donors with incorporation of molecular oxygen, incorporation of two atoms of oxygen; |

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