

JMJD1A/KDM3A recombinant protein

Recombinant JMJD1A/KDM3A protein

CATALOG #
AAA59693

HOST
Baculovirus

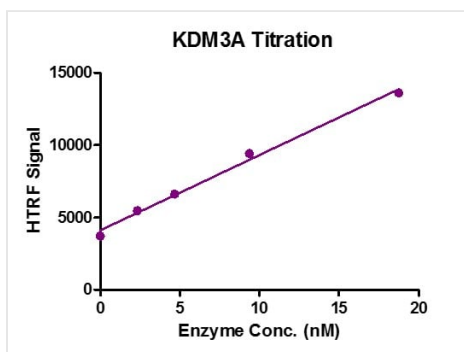
PRODUCT SYNONYMS

JMJD1A/KDM3A; Recombinant JMJD1A/KDM3A protein; Lysine Demethylase 3A; Jumonji C Domain-Containing Histone Demethylase 2A; JMJD1A/KDM3A recombinant protein

PRODUCT SPECIFICATIONS

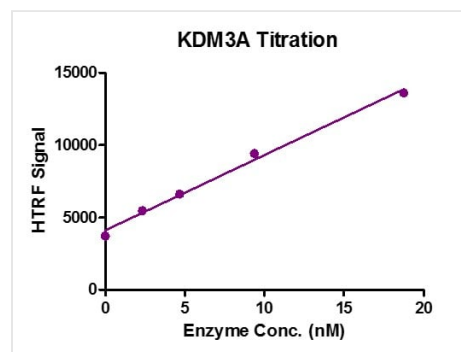
Host	Baculovirus
Form/Format	Recombinant JMJD1A/KDM3A protein is supplied in 25mM HEPES pH7.5, 300mM NaCl, 5% glycerol, 0.04% Triton X-100, 0.2mM TCEP. Please refer to product insert upon arrival for lot-specific concentration.
Protein Species	Human
Tag	DYKDDDDK-Tag
Notes	Recombinant JMJD1A/KDM3A is suitable for use in the study of enzyme kinetics, inhibitor screening, and selectivity profiling. Histone Demethylase Assay Conditions: 3uM H3K9me1 peptide was incubated with different concentrations of JMJD1A/KDM3A protein in 10ul reaction system containing 50mM HEPES-NaOH pH 7.5, 1mM TCEP, 50uM 2-OG, 50uM Ascorbate, 25uM (NH ₄) ₂ Fe(SO ₄) ₂ ·6H ₂ O for 2 hours, then 10ul anti-H3K9me0 antibody and SA-XL665 mixture (1:100 dilution in HTRF Detection Buffer) was added to each reaction system and incubated for 30 min. All the operations and reactions were performed at room temperature. HTRF assay was used for detection.
Dry Ice Note	The product may be shipped with dry ice, and an additional fee may be added to your shipping cost.
Preparation and Storage	Recombinant proteins in solution are temperature sensitive and must be stored at -80 degree C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. Shipping Temp: Dry Ice

IMAGES



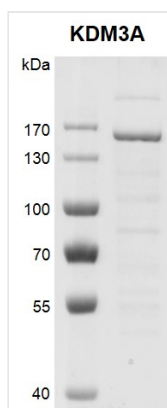
Application Data

HTRF assay for JMJD1A / KDM3A activity 3 uM H3K9me1 peptide was incubated with JMJD1A / KDM3A in reaction buffer for 2 hours at room temperature. Anti-H3K9me0 antibody was used to detect reaction product.



Application Data

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SDS-PAGE

Recombinant JMJD1A / KDM3A protein gel. JMJD1A / KDM3A protein was run on a 8% SDS-PAGE gel and stained with Coomassie blue.

ADDITIONAL INFORMATION

Related Product Information for JMJD1A/KDM3A recombinant protein

Short Description: Recombinant JMJD1A/KDM3A (accession number NP_001140160.1) was expressed in Sf9 cells and contains an N-terminal DYKDDDDK tag with an observed molecular weight of 151.6 kDa. 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. Recombinant JMJD1A/KDM3A can be used for enzyme kinetics and inhibitor screening studies.

Background: 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.

Product Categories/Family for JMJD1A/KDM3A recombinant protein

[Recombinant Proteins](#); [Histone Demethylase \(HDM\)](#)

NCBI AND UNIPROT INFORMATION

NCBI GI #	226442779
NCBI GeneID	55818
NCBI Accession #	NP_001140160.1
NCBI GenBank Nucleotide #	NM_001146688.1
UniProt Accession #	Q9Y4C1; Q53S72; Q68D47; Q68UT9; Q6N050; Q8IY08; D6W5M3
Molecular Weight	147,341 Da
NCBI Official Full Name	lysine-specific demethylase 3A
NCBI Official Synonym Full Names	lysine (K)-specific demethylase 3A
NCBI Official Symbol	KDM3A
NCBI Official Synonym Symbols	TSGA; JMJD1; JHDM2A; JHMD2A; JMJD1A

NCBI Protein Information	lysine-specific demethylase 3A
UniProt Protein Name	Lysine-specific demethylase 3A
UniProt Gene Name	KDM3A
UniProt Synonym Gene Names	JHDM2A; JMJD1; JMJD1A; KIAA0742; TSGA
UniProt Entry Name	KDM3A_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/kdm3a-recombinant-protein-baculovirus/59693>