

Datasheet for ABIN2669704
KDM3A Protein (DYKDDDDK Tag)

2 Images

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Overview

Quantity:	20 µg
Target:	KDM3A
Origin:	Human
Source:	Baculovirus
Protein Type:	Recombinant
Purification tag / Conjugate:	This KDM3A protein is labelled with DYKDDDDK Tag.
Application:	Enzyme Activity Assay (EAA), Screening Assay (ScA)

Product Details

Characteristics:	Recombinant JMJD1A / 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.
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Target Details

Target:	KDM3A
Alternative Name:	JMJD1A / KDM3A (KDM3A Products)
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

Target Details

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.

Molecular Weight: 151.6 kDa

Pathways: [Intracellular Steroid Hormone Receptor Signaling Pathway](#), [Nuclear Hormone Receptor Binding](#), [Warburg Effect](#)

Application Details

Application Notes: Recombinant JMJD1A / KDM3A is suitable for use in the study of enzyme kinetics, inhibitor screening, and selectivity profiling. Specific Activity: H3K9me2 demethylase. Histone Demethylase Assay Conditions: 50 mM HEPES pH 7.5, 0.02 % Triton X100, 100 μM 2OG, 100 μM Ascorbate, 50 μM (NH₄)₂Fe(SO₄)₂•6H₂O, 1 mM TCEP, 60 nM Recombinant JMJD1A / KDM3A protein, and 3.3 μM H3K9me2 (aa 1-21) peptide at 2 hours at room temperature. MALDI-TOF was used for detection.

Restrictions: For Research Use only

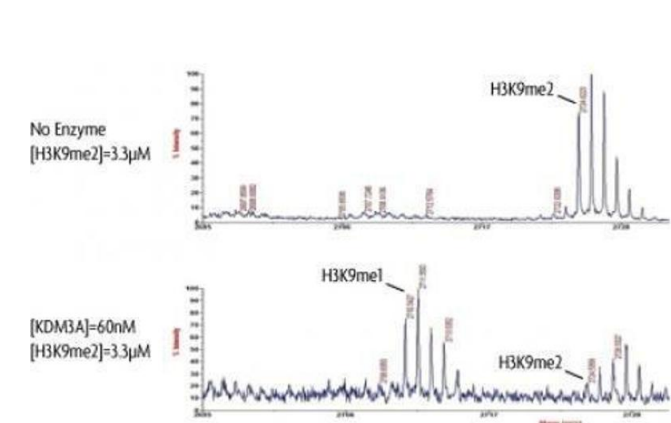
Handling

Handling Advice: Avoid repeated freeze/thaw cycles and keep on ice when not in storage.

Storage: -80 °C

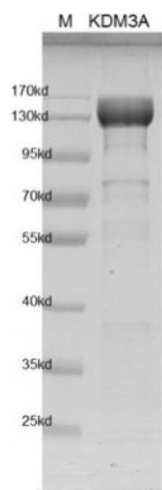
Storage Comment: Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation.

Images



Activity Assay

Image 1. JMJD1A / KDM3A activity assay. Recombinant JMJD1A / KDM3A activity measured using a demethylation assay. MALDI-TOF was used for detection.



Western Blotting

Image 2. Recombinant JMJD1A / KDM3A protein gel. JMJD1A / KDM3A protein was run on a 10% SDS-PAGE gel and stained with Coomassie blue.