Datasheet for ABIN2669705

KDM4A Protein (DYKDDDDK Tag)

2 Images

Go to Product page

Overview

Quantity:	20 µg
Target:	KDM4A
Origin:	Human
Source:	Baculovirus
Protein Type:	Recombinant
Purification tag / Conjugate:	This KDM4A protein is labelled with DYKDDDDK Tag.
Application:	Enzyme Activity Assay (EAA), Screening Assay (ScA)

Product Details

Characteristics:	Recombinant JMJD2A / 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.

Target Details

Target:	KDM4A
Alternative Name:	JMJD2A / KDM4A (KDM4A Products)
Background:	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,

Target Details

	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.
Molecular Weight:	125.3 kDa
Pathways:	Warburg Effect

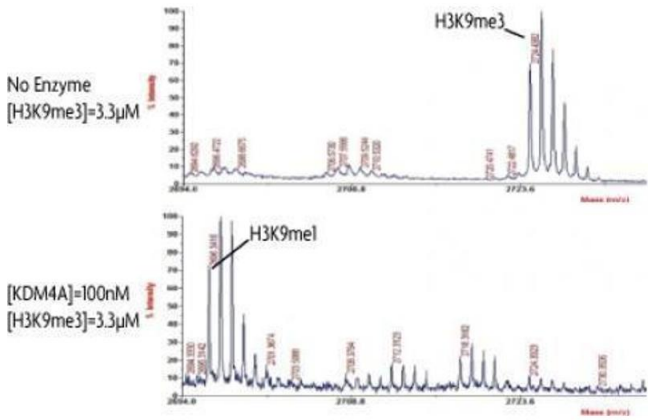
Application Details

Application Notes:	Recombinant JMJD2A / KDM4A is suitable for use in the study of enzyme kinetics, inhibitor screening, and selectivity profiling. Specific Activity: H3K9me3 and H3K36me3 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, 100 nM Recombinant JMJD2A / KDM4A protein, and 3.3 µM H3K9me3 (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.

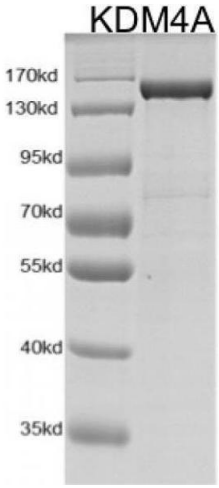
Images



Activity Assay

Image 1. JMJD2A / KDM4A activity assay. Recombinant JMJD2A / KDM4A activity measured using a demethylation assay. MALDI-TOF was used for detection.

Images



Western Blotting

Image 2. Recombinant JMJD2A / KDM4A protein gel. JMJD2A / KDM4A protein was run on a 10% SDS-PAGE gel and stained with Coomassie blue.