

Datasheet for ABIN2669680
KDM5A Protein (DYKDDDDK Tag)

3 Images

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Overview

Quantity:	20 µg
Target:	KDM5A
Origin:	Human
Source:	Baculovirus
Protein Type:	Recombinant
Purification tag / Conjugate:	This KDM5A protein is labelled with DYKDDDDK Tag.
Application:	Enzyme Activity Assay (EAA), Screening Assay (ScA)

Product Details

Characteristics:	Recombinant JARID1A / KDM5A (accession number NP_001036068.1) was expressed in Sf9 and contains an N-terminal FLAG tag with a molecular weight of 196.3 kDa.
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Target Details

Target:	KDM5A
Alternative Name:	JARID1A / KDM5A (KDM5A Products)
Background:	Lysine (K)-specific demethylase 5A (KDM5A), also known as Jumonji, AT rich interactive domain 1A (JARID1A), is a histone demethylase that specifically demethylates lysine 4 of histone H3 (H3K4), thereby playing a central role in defining the histone code. KDM5A demethylates trimethylated and dimethylated, but not monomethylated H3K4. It does not demethylate histone H3K9, H3K27, H3K36, H3K79 or H4K20. KDM5A may function to stimulate transcription mediated by nuclear receptors and may be involved in transcriptional regulation of HOX proteins during cell differentiation. Also, KDM5A may be involved in the transcriptional

Target Details

repression of cytokines such as CXCL12. It has been shown to bind directly with the Retinoblastoma (pRb) protein which regulates cell proliferation. KDM5A also interacts with Rhombotin-2 which functions distinctly in erythropoiesis and in T-cell leukemogenesis.

Molecular Weight: 196.3 kDa

Pathways: [Chromatin Binding](#), [Warburg Effect](#)

Application Details

Application Notes: Recombinant JARID1A / KDM5A is suitable for use in the study of enzyme kinetics, inhibitor screening, and selectivity profiling. Specific Activity: H3K4me3 demethylase. Catalytic rate: >60 turnovers/ enzyme molecule/ hour. Histone Demethylase Assay Conditions: 50 mM HEPES pH 7.5, 0.02 % Triton X100, 100 μ M 2OG, 100 μ M Ascorbate, 50 μ M (NH₄)₂Fe(SO₄)₂•6H₂O, 1 mM TCEP, 100 nM Recombinant JARID1A / KDM5A protein, and 3.3 μ M H3K4me3 (aa 1-21) peptide at 2 hours at room temperature. MALDI-TOF was used for detection.

Restrictions: For Research Use only

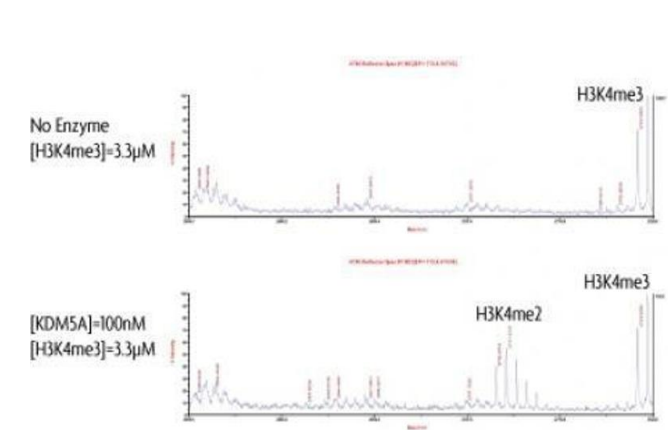
Handling

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

Storage: -80 °C

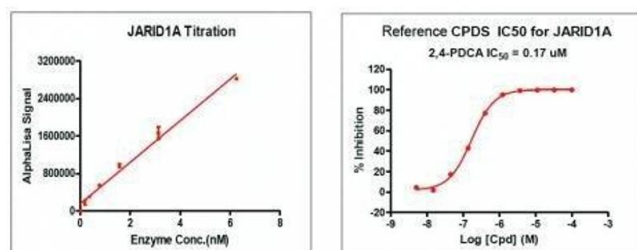
Storage Comment: Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation.

Images



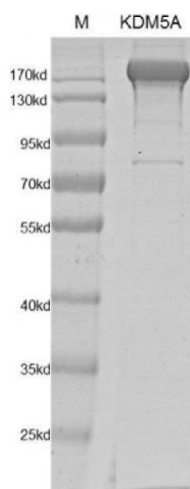
Activity Assay

Image 1. JARID1A / KDM5A activity assay. Recombinant JARID1A / KDM5A activity measured using a demethylation assay. MALDI-TOF was used for detection.



Screening Assay

Image 2. Recombinant JARID1A / KDM5A activity using AlphaLISA. JARID1A / KDM5A was used in an AlphaLISA assay to determine enzyme linearity. An IC₅₀ dose response assessment of reference compound 2,4-PDCA is also shown. This data was generated and kindly provided courtesy of ChemPartner.



Western Blotting

Image 3. Recombinant JARID1A / KDM5A protein gel. JARID1A / KDM5A protein was run on an SDS-PAGE gel and stained with Coomassie blue.