

## Recombinant JMJD1B / KDM3B protein

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**Catalog No:** 31429

**Expressed In:** Baculovirus

**Quantity:** 20 µg

**Concentration:** 0.5 µg/µl

**Source:** Human

**Buffer Contents:** Full length recombinant JMJD1B / KDM3B protein expressed in Sf9 cells at a concentration of 0.5 mg/ml in 25 mM HEPES pH 7.5, 120 mM NaCl, 0.2 mg/ml 3 X FLAG peptide and 5% glycerol.

**Background:** **Lysine (K)-specific demethylase 3B (KDM3B)**, also known as **Jumonji domain-containing protein 1B (JMJD1B)**, is a histone demethylase that specifically demethylates lysine 9 of histone H3 (H3K9), thereby playing a central role in defining the histone code. Demethylation of lysine residues generates formaldehyde and succinate. KDM3B may have tumor suppressor activity.

**Protein Details:** Recombinant JMJD1B / KDM3B (accession number NP\_057688.2) was expressed in Sf9 cells and contains an N-terminal 6×His tag and FLAG tag with a molecular weight of 195.4 kDa. The recombinant protein is >85% pure by SDS-PAGE.

**Application Notes:** Recombinant JMJD1B / KDM3B is suitable for use in the study of enzyme kinetics, inhibitor screening, and selectivity profiling.

**Specific Activity:** H3K9me2 demethylase.

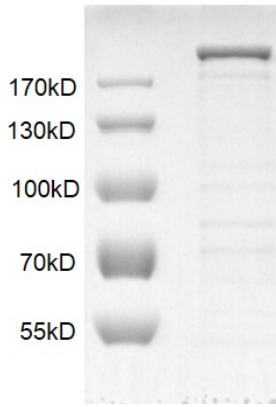
**Catalytic Ability:** > 160 turnovers / enzyme molecule

**Histone Demethylase Assay Conditions:** 3.3 µM H3K9me2 peptide was incubated with different concentrations of recombinant JMJD1B / KDM3B protein in reaction buffer containing 50 mM HEPES pH 7.5, 0.02% Triton X100, 100 µM 2OG, 100 µM Ascorbate, 50 µM (NH<sub>4</sub>)<sub>2</sub>Fe(SO<sub>4</sub>)<sub>2</sub>·6H<sub>2</sub>O, 1 mM TCEP for 1 hours at room temperature. HTRF and MALDI-TOF were used for detection.

**Storage and Guarantee:** 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. This product is guaranteed for 6 months from date of receipt.

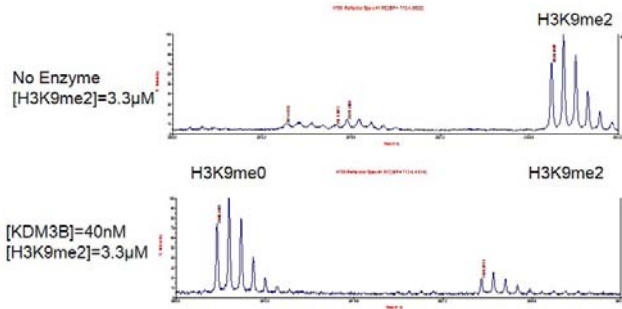
This product is for research use only and is not for use in diagnostic procedures.

### JMJD1B



### Recombinant JMJD1B / KDM3B protein gel.

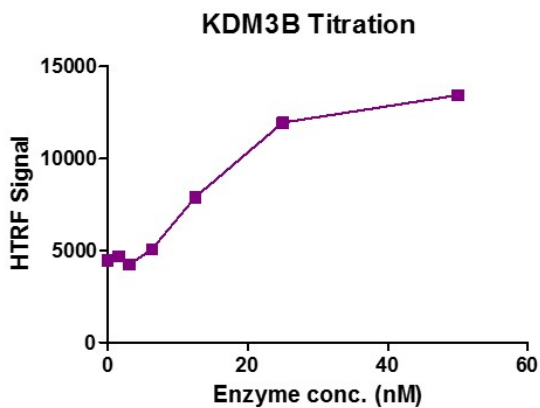
JMJD1B / KDM3B protein was run on an 8% SDS-PAGE gel and stained with Coomassie blue.



### Recombinant JMJD1B / KDM3B protein activity assay.

3.3 µM H3K9me2 peptide was incubated with 40 nM JMJD1B / KDM3B in reaction buffer for 2 hours at room temperature. The reaction product was detected by MALDI-TOF. Single 3.3 µM H3K9me2 peptide was used as negative control.

Catalytic Ability: >160 turnovers/ enzyme molecule



### Recombinant JMJD1B / KDM3B protein activity assay.

3.3 µM H3K9me2 peptide was incubated with recombinant JMJD1B / KDM3B protein in reaction buffer for 1 hours at room temperature. JMJD1B / KDM3B enzyme was used in a HTRF assay to determine enzyme linearity. Demethylated peptide (H3K9me0) was measured using H3K9me0-specific antibody.