

Recombinant JMJD2B / KDM4B protein

Catalog No: 31501, 31905

Expressed In: Baculovirus

Quantity: 20, 1000 µg

Concentration: 0.35 µg/µl

Source: Human

Buffer Contents: Full length recombinant JMJD2B / KDM4B protein was expressed in Sf9 cells and is supplied in 25 mM Hepes pH 7.5, 300 mM NaCl, 5% Glycerol, 0.04% Triton X-100, 0.2 mM TCEP.

Background: JMJD2B / KDM4B (JmjC domain-containing histone demethylation protein 3B, Jumonji domain-containing protein 2B, JHDM3B) is a histone demethylase that has been shown to demethylate trimethylated lysine 9 (K9me3) and lysine 36 (K36me3) residues of histone H3, converting these trimethylated histone residues to dimethylated or monomethylated form. KDM4B has no activity for monomethylated H3K9 and H3K36. JMJD2B / KDM4B is physically associated with the MLL2 methyltransferase complex where it serves as a co-factor for ERα-mediated transcriptional activation.

Protein Details: Recombinant JMJD2B / KDM4B (accession number NP_055830.1) was expressed in Sf9 cells and contains an N-terminal 6×His-Tag and FLAG-Tag with an observed molecular weight of 126.9 kDa. The recombinant protein is >90% pure by SDS-PAGE.

Application Notes: Recombinant JMJD2B / KDM4B protein is suitable for use in the study of enzyme kinetics, inhibitor screening, and selectivity profiling.

Histone Demethylase Assay Conditions: 3.3 µM H3K9me3 (aa 1-21) peptide was incubated with different concentrations of recombinant JMJD2B / KDM4B protein in reaction buffer containing 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 for 1 hours at room temperature. HTRF and MALDI-TOF was used for detection.

References:

This product was used in the following publications:
Cell Death Dis. (2018). 9(10): 1038. PMID: 30305606.

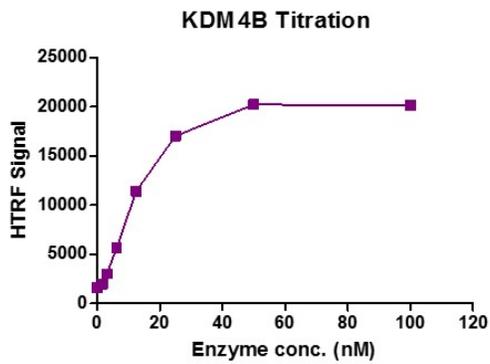
Storage and Guarantee: Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is guaranteed for 6 months from date of receipt.

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



Recombinant JMJD2B / KDM4B protein gel.

JMJD2B / KDM4B protein was run on an 8% SDS-PAGE gel and stained with Coomassie blue.



Recombinant JMJD2B / KDM4B protein HTRF activity assay.

3.3 μ M H3K9me3 peptide was incubated with JMJD2B / KDM4B in reaction buffer for 1 hours at room temperature. JMJD2B / KDM4B enzyme was used in a HTRF assay to determine enzyme linearity. Demethylated peptide (H3K9me2) was measured using H3K9me2-specific antibody.