

Recombinant JMJD3 / KDM6B (1043-1682) protein

Catalog No: 31519, 31919

Expressed In: Baculovirus

Quantity: 20, 1000 µg

Concentration: 0.4 µg/µl

Source: Human

Buffer Contents: Recombinant JMJD3 / KMD6B (1043-1682) protein is supplied at a concentration of 0.4 µg/µl in 25 mM HEPES-NaOH pH 7.5, 300 mM NaCl, 5% glycerol, 0.04% Triton X-100, 0.2 mM TCEP.

Background: JMJD3 / KMD6B (Jumonji domain-containing protein 3 lysine (K)-specific demethylase 6B) is a histone demethylase that specifically demethylates 'Lys-27' of histone H3, thereby, playing a central role in histone code. JMJD3 demethylates trimethylated and dimethylated H3 'Lys-27'. It plays a central role in regulation of posterior development by regulating HOX gene expression. JMJD3 / KMD6B is involved in inflammatory response by participating in macrophage differentiation in case of inflammation by regulating gene expression and macrophage differentiation.

Protein Details: Recombinant JMJD3 / KMD6B (1043-1682) that includes amino acids 1043 - 1682 of human JMJD3 / KMD6B protein (accession number NP_001073893.1) was expressed in Baculovirus expression system and contains a C-terminal Flag tag with a molecular weight of 73.4 kDa. The recombinant protein is ≥ 90% pure by SDS-PAGE.

Application Notes: Recombinant JMJD3 / KDM6B (1043-1682) is suitable for use in the study of enzyme kinetics, inhibitor screening, and selectivity profiling.

HDM Activity Assay Conditions: 1 µM H3K27me3 peptide was incubated with different concentrations of JMJD3 (1043- 1682) protein in 10 µl reaction system containing 50 mM HEPES-NaOH pH 7.4, 0.02% Triton X-100, 1 mM TCEP, 50 µM 2-OG, 50 µM Ascorbate and 25 µM (NH₄)₂Fe(SO₄)₂·6H₂O for 2 hours, then 10 micro;l H3K27me2 antibody and SA-XL665 mixture (each 1:100 dilution in HTRF Detection Buffer) was added to each reaction system and incubated for 30 min. All the operations and reactions were performed at room temperature. HTRF assay was used for detection.

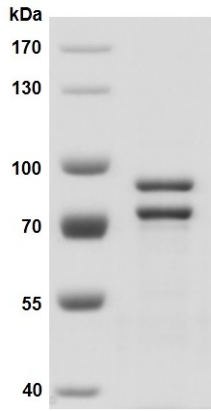
References:

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.

JMJD3 (1043-1682)



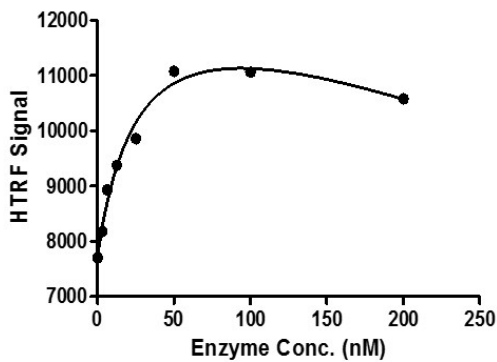
Recombinant JMJD3 / KDM6B (1043-1682) SDS-PAGE gel.

Recombinant JMJD3 was run on an 8% SDS-PAGE gel and stained with Coomassie Blue.

MW: 73.4 kDa

Purity: > 90%

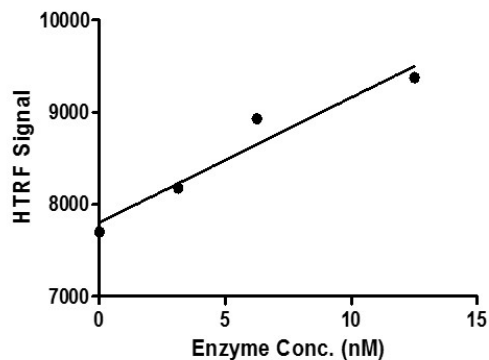
JMJD3 (1043-1682) Titration



HTRF assay for JMJD3 / KDM6B (1043-1682) activity.

1 μ M histone H3K27me3 peptide was incubated with JMJD3 (1043-1682) protein in reaction buffer for 2 hours at room temperature. Reaction products were detected with H3K27me2 antibody.

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