

## JMJD2B/KDM4B recombinant protein

Recombinant JMJD2B/KDM4B protein

|                              |                            |
|------------------------------|----------------------------|
| CATALOG #<br><b>AAA59722</b> | HOST<br><b>Baculovirus</b> |
|------------------------------|----------------------------|

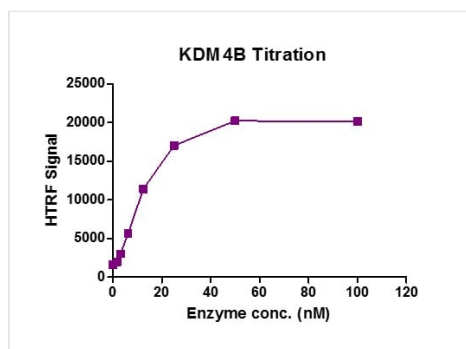
### PRODUCT SYNONYMS

JMJD2B/KDM4B; Recombinant JMJD2B/KDM4B protein; Lysine Demethylase 4B; Jumonji Domain-Containing Protein 2B; JHDM3B; JMJD2B/KDM4B recombinant protein

### PRODUCT SPECIFICATIONS

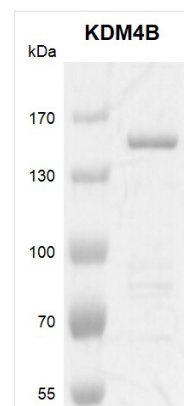
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|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                    | Baculovirus                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Purity/Purification     | The recombinant protein is >90% pure by SDS-PAGE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Form/Format             | Full length recombinant JMJD2B/KDM4B protein was expressed in Sf9 cells and is supplied in 25mM Hepes pH7.5, 300mM NaCl, 5% Glycerol, 0.04% Triton X-100, 0.2mM TCEP.                                                                                                                                                                                                                                                                                                                                                                                                       |
| Protein Species         | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Tag                     | DYKDDDDK-Tag, His-Tag                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Notes                   | Recombinant JMJD2B/KDM4B protein is suitable for use in the study of enzyme kinetics, inhibitor screening, and selectivity profiling. Histone Demethylase Assay Conditions: 3.3uM H3K9me3 (aa 1-21) peptide was incubated with different concentrations of recombinant JMJD2B/KDM4B protein in reaction buffer containing 50mM HEPES pH 7.5, 0.02% Triton X100, 100uM 2OG, 100uM Ascorbate, 50uM (NH <sub>4</sub> ) <sub>2</sub> Fe(SO <sub>4</sub> ) <sub>2</sub> ·6H <sub>2</sub> O, 1mM TCEP for 1 hours at room temperature. HTRF and MALDI-TOF was used for detection. |
| Dry Ice Note            | The product may be shipped with dry ice, and an additional fee may be added to your shipping cost.                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Preparation and Storage | Recombinant proteins in solution are temperature sensitive and must be stored at -80 degree C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage.<br>Shipping Temp: Dry Ice                                                                                                                                                                                                                                                                                                                                                      |

### IMAGES



#### Application Data

Recombinant JMJD2B / KDM4B protein HTRF activity assay. 3 ?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.



#### SDS-PAGE

Recombinant JMJD2B / KDM4B protein gel. JMJD2B / KDM4B protein was run on an 8% SDS-PAGE gel and stained with Coomassie blue. MW: 126.9 kDa Purity: >70%

ADDITIONAL INFORMATION

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|------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for JMJD2B/KDM4B recombinant protein | <p>Short Description: Recombinant JMJD2B/KDM4B (accession number NP_055830.1) was expressed in Sf9 cells and contains an N-terminal 6xHis-tag and DYKDDDDK-Tag with an observed molecular weight of 126.9 kDa. The recombinant protein is &gt;90% pure by SDS-PAGE. It is suitable for use in the study of enzyme kinetics, inhibitor screening, and selectivity profiling.</p> <p>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 ERA-mediated transcriptional activation.</p> |
| Product Categories/Family for JMJD2B/KDM4B recombinant protein   | Recombinant Proteins; Histone Demethylase (HDM)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

NCBI AND UNIPROT INFORMATION

|                                  |                                                                                                                                                                                          |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NCBI GI #                        | 45504380                                                                                                                                                                                 |
| NCBI GeneID                      | 23030                                                                                                                                                                                    |
| NCBI Accession #                 | NP_055830.1                                                                                                                                                                              |
| NCBI GenBank Nucleotide #        | NM_015015.2                                                                                                                                                                              |
| UniProt Accession #              | O94953; O75274; Q6P3R5; Q9P1V1; Q9UF40; B9EGN8; D6W631                                                                                                                                   |
| Molecular Weight                 | 121,897 Da                                                                                                                                                                               |
| NCBI Official Full Name          | lysine-specific demethylase 4B                                                                                                                                                           |
| NCBI Official Synonym Full Names | lysine (K)-specific demethylase 4B                                                                                                                                                       |
| NCBI Official Symbol             | KDM4B                                                                                                                                                                                    |
| NCBI Official Synonym Symbols    | JMJD2B; TDRD14B                                                                                                                                                                          |
| NCBI Protein Information         | lysine-specific demethylase 4B; tudor domain containing 14B; jumonji domain containing 2B; jumonji domain-containing protein 2B; jmjC domain-containing histone demethylation protein 3B |
| UniProt Protein Name             | Lysine-specific demethylase 4B                                                                                                                                                           |
| UniProt Gene Name                | KDM4B                                                                                                                                                                                    |
| UniProt Synonym Gene Names       | JHDM3B; JMJD2B; KIAA0876                                                                                                                                                                 |
| UniProt Entry Name               | KDM4B_HUMAN                                                                                                                                                                              |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.