

## Recombinant JARID1B / KDM5B (2-751) protein

---

**Catalog No:** 31518, 31918

**Lot No:** 14716001

**Expressed In:** Baculovirus

**Quantity:** 20, 1000 µg

**Concentration:** 0.2 µg/µl

**Source:** Human

**Buffer Contents:** Recombinant JARID1B / KDM5B (2-751) protein was expressed in Sf9 cells at a concentration of 0.2 µg/µl in 25 mM HEPES pH 7.5, 300 mM NaCl, 5% glycerol, 0.04% Triton X-100, 0.2 mM TCEP.

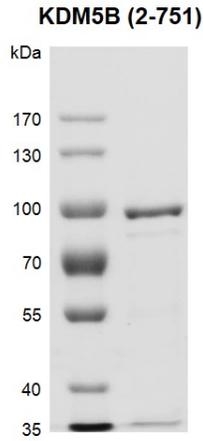
**Background:** Lysine (K)-specific demethylase 5B (KDM5B), also known as Jumonji, AT rich interactive domain 1B (JARID1B), is a histone demethylase that specifically demethylates lysine 4 of histone H3 (H3K4), thereby playing a central role in defining the histone code. KDM5B demethylates trimethylated, dimethylated and monomethylated H3K4. It does not demethylate histone H3K9 or H3K27. KDM5B functions as a transcriptional corepressor for FOXG1B and PAX9. KDM5B induces the proliferation of breast cancer cells by repressing tumor suppressor genes such as BRCA1 and HOXA5. In contrast, it may act as a tumor suppressor for melanoma.

**Protein Details:** Recombinant JARID1B / KDM5B (2-751) (accession number NP\_006609) was expressed in Sf9 cells and contains an N-terminal FLAG tag with an observed molecular weight of 100 kDa. The recombinant protein is ≥ 80% pure by SDS- PAGE.

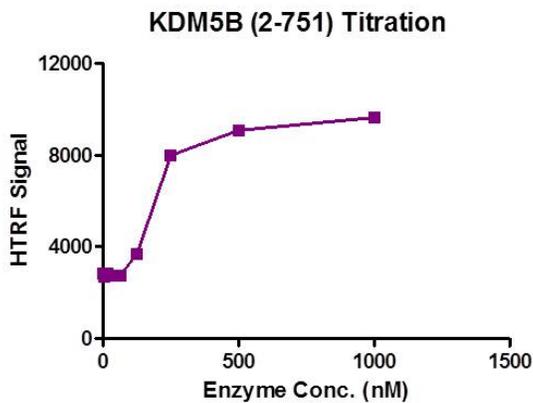
**Application Notes:** Recombinant JARID1B / KDM5B (2-751) is suitable for use in the study of enzyme kinetics, inhibitor screening, and selectivity profiling.

**HDM Activity Assay Conditions:** 3 µM H3K4me3 (1-21aa) peptide was incubated with KDM5B (2-751) protein in reaction buffer including 50 mM HEPES pH 7.5, 0.02% Triton X-100, 100 µM 2-OG, 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 for 1 hour at room temperature. HTRF assay and MALDI-TOF was used for activity 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 for research use only and is not for use in diagnostic procedures. This product is guaranteed for 6 months from date of arrival.

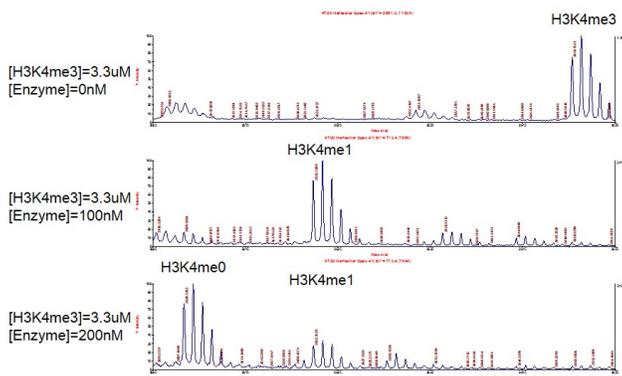


**Recombinant JARID1B / KDM5B (2-751)** was run on a 12.5% SDS-PAGE gel and stained with Coomassie Blue.  
MW: 100 kDa Purity: >80%



**HTRF assay for JARID1B /KDM5B (2-751) activity**

3  $\mu$ M H3K4me3 (1-21 aa) peptide was incubated with KDM5B (2-751) protein in reaction buffer for 1 hour at room temperature. Anti-H3K4me2-d2 antibody was used to detect reaction product.



**MALDI-TOF for JARID1B / KDM5B (2-751) activity.**

3.3  $\mu$ M H3K4me3 (1-21 aa) peptide was incubated with 100 nM or 200 nM JARID1B / KDM5B (2-751) protein in reaction buffer for 2 hours at room temperature. MALDI-TOF was used for detection. Catalytic Ability: > 60 turnovers/ enzyme molecule