

# Human Lysine (K)-specific Demethylase 3A/KDM3A Antibody

Antigen Affinity-purified Polyclonal Sheep IgG Catalog Number: AF6746

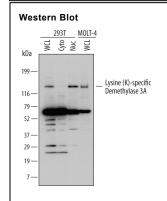
| DESCRIPTION        |  |  |  |
|--------------------|--|--|--|
| Species Reactivity | Human  |  |  |
| Specificity        | Detects human KDM3A in direct ELISAs and Western blots. In direct ELISAs, approximately 3% cross-reactivity with recombinant human (rh) KDM4A is observed.   |  |  |
| Source             | Polyclonal Sheep IgG   |  |  |
| Purification       | Antigen Affinity-purified  |  |  |
| Immunogen          | E. coli-derived recombinant human KDM3A Pro844-Glu968 Accession # Q9Y4C1   |  |  |
| Formulation        | Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS. |  |  |

#### APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

|              | Recommended<br>Concentration | Sample    |
|--------------|------------------------------|-----------|
| Western Blot | 2 μg/mL                      | See Below |

### DATA



Detection of Human Lysine (K)-specific Demethylase 3A/KDM3A by Western Blot. Western blot shows lysates of 293T human embryonic kidney cell line and MOLT-4 human acute lymphoblastic leukemia cell line. Gels were loaded with 30 µg of whole cell lysate (WCL), 20 µg of cytoplasmic (Cyto), and 10 µg of nuclear extracts (Nuc). PVDF Membrane was probed with 2 µg/mL of Sheep Anti-Human KDM3A Antigen Affinity purified Polyclonal Antibody (Catalog # AF6746) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for KDM3A at approximately 150 kDa (as indicated), the band at approximately 70kDa represents the product of degradation or processing. This experiment was conducted under reducing conditions and using Immunoblot Buffer

#### PREPARATION AND STORAGE

Reconstitution Sterile PBS to a final concentration of 0.2 mg/mL

**Shipping**The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

\*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C

Stability & Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 6 months, -20 to -70 °C under sterile conditions after reconstitution.

## **BACKGROUND**

JMJD1A (Jumonji [Japanese for "cruciform/cross"]/ARID domain-containing protein 1A; also KDM3A, JHDM2A, and TSGA) is a 140-150 kDa member of the JHDM2 histone demethylase family of proteins. It is induced by hypoxia, and expressed in spermatids, smooth muscle cells, mammary epithelium, hepatocytes, and renal tubular epithelium. JMJD1A is reported to demethylate di- and mono-methylated Lys9 on histone H3. It has no activity on trimethylated Lys9. JMJD1A is both cytoplasmuc and nuclear, and serves as a coactivator for the AR. Human JMJD1A is 1321 amino acids (aa) in length. It contains one C6-type zinc-finger motif (aa 662-687) and a jumonji C type catalytic domain (aa 1151-1264). There is one phosphorylation site at Ser445. There is one potential splice variants that shows a 13 aa substitution for aa 699-1321. Over aa 810-968, human JMJD1A shares 94% aa identity with mouse JMJD1A.

Rev. 2/6/2018 Page 1 of 1

