

# Product Datasheet

## Lysine (K)-specific Demethylase 6B/KDM6B/JMJD3 Antibody - BSA Free NBP1-06640

Unit Size: 0.1 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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**NBP1-06640**

Lysine (K)-specific Demethylase 6B/KDM6B/JMJD3 Antibody - BSA Free

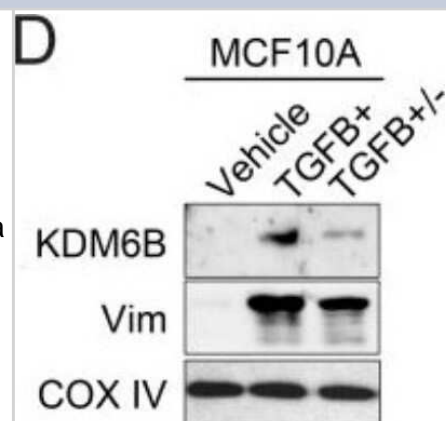
Product Information	
Unit Size	0.1 ml
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.1% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS (pH 7.4)

Product Description	
Host	Rabbit
Gene ID	23135
Gene Symbol	KDM6B
Species	Human, Mouse
Immunogen	Synthetic peptide made to an internal portion of the mouse JMJD3 protein (within residues 600-650). [Swiss-Prot# Q5NCY0]

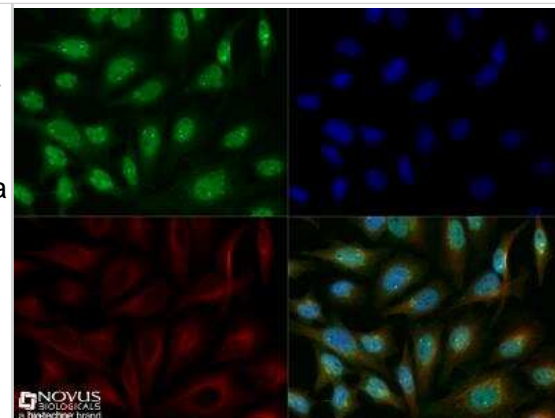
Product Application Details	
Applications	Western Blot, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry
Recommended Dilutions	Western Blot 2 ug/ml, Flow Cytometry reported in scientific literature (PMID 23772023), Immunohistochemistry reported in scientific literature (PMID 35177643), Immunocytochemistry/ Immunofluorescence 1:100
Application Notes	This JMJD3 antibody is useful for Western blot where a band is seen at ~180 kDa.

**Images**

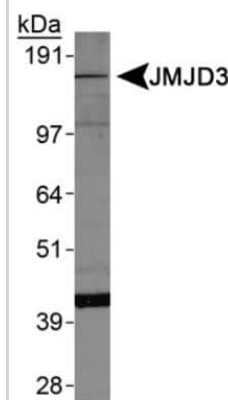
Western Blot: Lysine (K)-specific Demethylase 6B/KDM6B/JMJD3 Antibody [NBP1-06640] - KDM6A protein levels are decreased following EMT and upregulated during MET. MCF10A cells, treated as described, were analyzed by immunoblotting for Lysine (K)-specific Demethylase 6B/KDM6B/JMJD3 and vimentin (Vim). COX IV was used as a loading control. Image collected and cropped by CiteAb from the following publication (<https://www.oncotarget.com/fulltext/19214>), licensed under a CC-BY license.



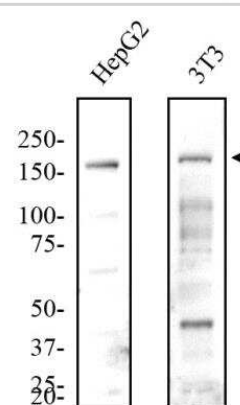
**Immunocytochemistry/Immunofluorescence:** Lysine (K)-specific Demethylase 6B/KDM6B/JMJD3 Antibody [NBP1-06640] - HeLa cells were fixed for 10 minutes using 10% formalin and then permeabilized for 5 minutes using 1X TBS + 0.5% Triton-X100. The cells were incubated with anti-JMJD3 [NBP1-06640] at a 1:200 dilution overnight at 4C and detected with an anti-rabbit Dylight 488 (Green) at a 1:500 dilution. Alpha tubulin (DM1A) [NB100-690] was used as a co-stain at a 1:1000 dilution and detected with an anti-mouse Dylight 550 (Red) at a 1:500 dilution. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 40X objective.



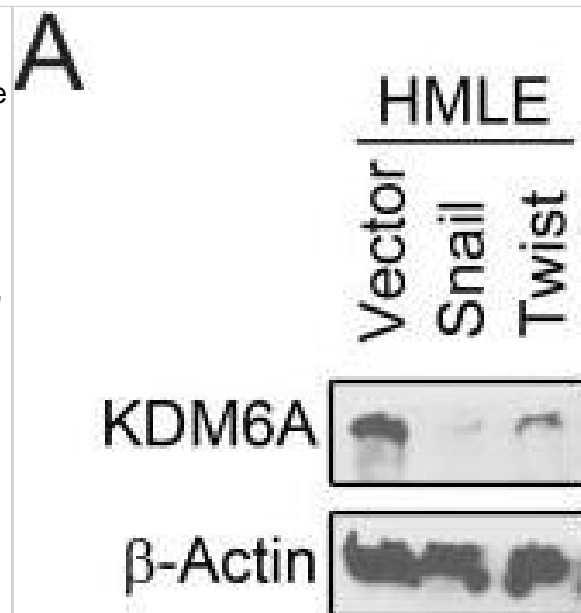
**Western Blot:** Lysine (K)-specific Demethylase 6B/KDM6B/JMJD3 Antibody [NBP1-06640] - Analysis of JMJD3 expression on HepG2 whole cell lysates.



**Western Blot:** Lysine (K)-specific Demethylase 6B/KDM6B/JMJD3 Antibody [NBP1-06640] - Total protein from human HepG2 and mouse 3T3 cells was separated on a 7.5% gel by SDS-PAGE, transferred to PVDF membrane and blocked in 5% non-fat milk in TBST. The membrane was probed with 2.0 ug/mL anti-JMJD3 in 1% non-fat milk in TBST and detected with an anti-rabbit HRP secondary antibody using chemiluminescence.



Western Blot: Lysine (K)-specific Demethylase 6B/KDM6B/JMJD3 Antibody - BSA Free [NBP1-06640] - KDM6A protein levels are decreased following EMT & upregulated during MET(A) HMLE cells were transduced with either an empty vector (HMLE-Vector), or genes encoding the EMT-inducing transcription factors Snail (HMLE-Snail) or Twist (HMLE-Twist) [4]. Whole-cell lysates were analyzed by immunoblotting for KDM6A.  $\beta$ -actin was used as a loading control. (B-F) MCF10A cells were treated with sterile 4 mM HCl containing 0.1% bovine serum albumin (Vehicle) or TGFB for 5 days (TGFB+). In parallel, MCF10A cells were exposed to TGFB for 5 days in order to induce EMT, & subsequently subjected to TGFB-withdrawal, for a further 5 days, to elicit MET (TGFB+/-). (B-C) MCF10A cells, treated as described, were fixed & immunostained for E-cadherin (B) & N-cadherin (C). Nuclei were counterstained with DAPI (blue). Scale bars, 50  $\mu$ m. (D) MCF10A cells, treated as described, were analyzed by immunoblotting for KDM6B & vimentin (Vim). COX IV was used as a loading control. (E) MCF10A cells, treated as described, were fixed & immunostained for KDM6A. Nuclei were counterstained with DAPI (blue). Scale bars, 50  $\mu$ m. (F) Cells were analyzed by immunoblotting for KDM6A, EZH2 & RING1A.  $\beta$ -actin was used as a loading control. Image collected & cropped by CiteAb from the following publication (<https://www.oncotarget.com/lookup/doi/10.18632/oncotarget.19214>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



## Publications

Nanduri J, Wang N, Wang BI, Prabhakar Nr Lysine demethylase KDM6B regulates HIF-1 alpha mediated systemic and cellular responses to intermittent hypoxia *Physiological genomics* 2021-07-23 [PMID: 34297635]

Colin T. Maguire, Bradley L. Demarest, Jonathon T. Hill, James D. Palmer, Arthur R. Brothman, H. Joseph Yost, Maureen L. Condic, Li Chen Genome-Wide Analysis Reveals the Unique Stem Cell Identity of Human Amniocytes *PLoS ONE* 2013-01-10 [PMID: 23326421]

Zhang W, Fu Z, Yin H et al. Macrophage Polarization Modulated by Porcine Circovirus Type 2 Facilitates Bacterial Coinfection *Frontiers in Immunology* 2021-07-28 [PMID: 34394082] (Western Blot)

Gao Y, Wang N, Jia D H3K27 tri-demethylase JMJD3 inhibits macrophage apoptosis by promoting ADORA2A in lipopolysaccharide-induced acute lung injury *Cell death discovery* 2022-12-01 [PMID: 36456564] (WB, IHC-P, Mouse)

Gao Y, Wang N, Jia D JMJD3 downregulates IL4i1 aggravating lipopolysaccharide-induced acute lung injury via H3K27 and H3K4 demethylation *Environmental toxicology* 2022-12-20 [PMID: 36537648]

Ming-Chin Lee K, Achuthan AA, De Souza DP et al. Type I interferon antagonism of the JMJD3-IRF4 pathway modulates macrophage activation and polarization *Cell reports* 2022-04-19 [PMID: 35443173] (WB)

Wang W, Cho H, Lee JW, Lee SK The histone demethylase Kdm6b regulates subtype diversification of mouse spinal motor neurons during development *Nature communications* 2022-02-17 [PMID: 35177643] (IF/IHC, Mouse)

Wu Q, Shichino Y, Abe T et al. Selective translation of epigenetic modifiers affects the temporal pattern and differentiation of neural stem cells *Nature communications* 2022-01-25 [PMID: 35078993] (WB, Mouse)

Lu H, Xie Y, Tran L et al. Chemotherapy-induced S100A10 recruits KDM6A to facilitate OCT4-mediated breast cancer stemness *J Clin Invest.* 2020-05-19 [PMID: 32427586] (WB, Human)

Huang M, Wang Q, Long F et al. Jmjd3 regulates inflammasome activation and aggravates DSS-induced colitis in mice *FASEB J.* 2020-01-23 [PMID: 31971317] (WB, ICC/IF, Mouse)

Luo X, Yang D, Wu W et al. Critical role of histone demethylase JMJD3 in the regulation of neointima formation following vascular injury. *Cardiovasc. Res.* 2018-07-04 [PMID: 29982434]

Liu S, Wang X, Pan L, Wu W et al. Endogenous hydrogen sulfide regulates histone demethylase JMJD3-mediated inflammatory response in LPS-stimulated macrophages and in a mouse model of LPS-induced septic shock *Biochem. Pharmacol.* 2017-10-23 [PMID: 29074105] (WB, Mouse)

More publications at <http://www.novusbio.com/NBP1-06640>





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### **Products Related to NBP1-06640**

NBP1-42569	HepG2 Whole Cell Lysate
NBP1-06640PEP	Lysine (K)-specific Demethylase 6B/KDM6B/JMJD3 Antibody Blocking Peptide
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

### **Limitations**

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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