

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

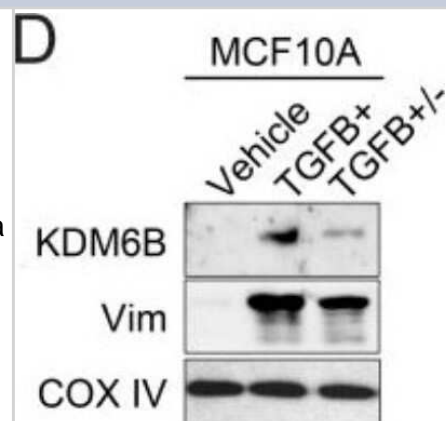
Product Information	
Unit Size	0.1 ml
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.1% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS

Product Description	
Description	Novus Biologicals Rabbit Lysine (K)-specific Demethylase 6B/KDM6B/JMJD3 Antibody - BSA Free (NBP1-06640) is a polyclonal antibody validated for use in IHC, WB, Flow and ICC/IF. Anti-Lysine (K)-specific Demethylase 6B/KDM6B/JMJD3 Antibody: Cited in 15 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
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]

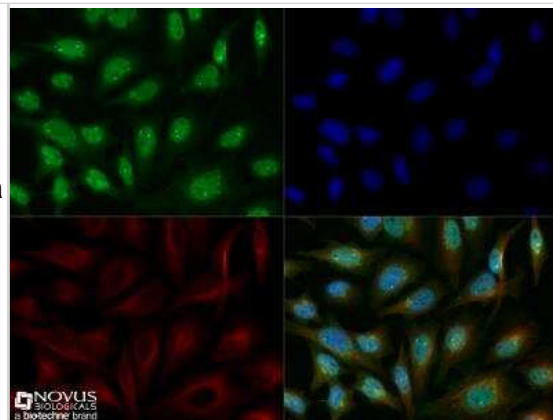
Product Application Details	
Applications	Western Blot, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry
Recommended Dilutions	Western Blot 2 ug/ml, Flow Cytometry reported in scientific literature (PMID 23772023), Immunohistochemistry reported in scientific literature (PMID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

Images

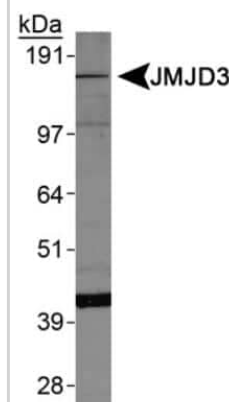
Western Blot: Lysine (K)-specific Demethylase 6B/KDM6B/JMJD3 Antibody [NBP1-06640] - KDM6A protein levels are decreased following EMT and upregulated during MET. MCF10A cells, treated as described, were analyzed by immunoblotting for Lysine (K)-specific Demethylase 6B/KDM6B/JMJD3 and vimentin (Vim). 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.



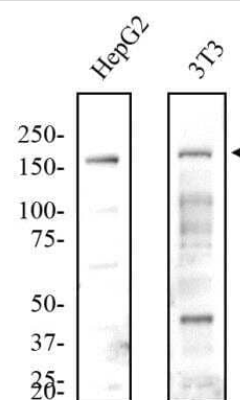
Immunocytochemistry/Immunofluorescence: Lysine (K)-specific Demethylase 6B/KDM6B/JMJD3 Antibody [NBP1-06640] - HeLa cells were fixed for 10 minutes using 10% formalin and then permeabilized for 5 minutes using 1X TBS + 0.5% Triton-X100. The cells were incubated with anti-JMJD3 [NBP1-06640] at a 1:200 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.



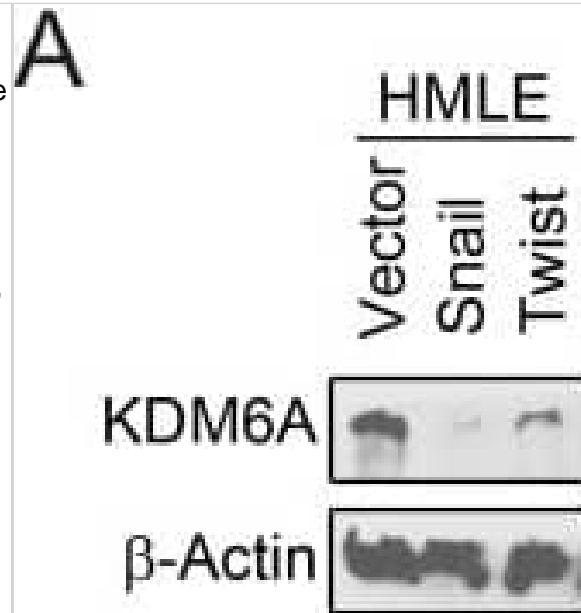
Western Blot: Lysine (K)-specific Demethylase 6B/KDM6B/JMJD3 Antibody [NBP1-06640] - Analysis of JMJD3 expression on HepG2 whole cell lysates.



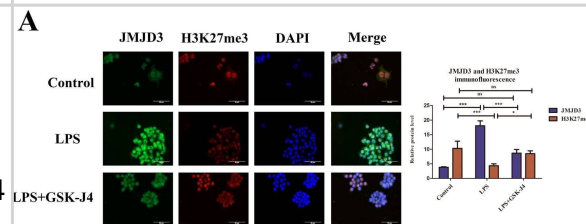
Western Blot: Lysine (K)-specific Demethylase 6B/KDM6B/JMJD3 Antibody [NBP1-06640] - Total protein from human HepG2 and mouse 3T3 cells was separated on a 7.5% gel by SDS-PAGE, transferred to PVDF membrane and blocked in 5% non-fat milk in TBST. The membrane was probed with 2.0 ug/mL anti-JMJD3 in 1% 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. β -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 μ 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 μ m. (F) Cells were analyzed by immunoblotting for KDM6A, EZH2 & RING1A. β -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.



JMJD3-induced H3K27me3 demethylation and up-regulated ADORA2A and C/EBP β expressions in macrophage. **A** In LPS-stimulated macrophage, JMJD3 expression was increased while H3K27me3 was decreased (JMJD3: $P < 0.001$, control vs. LPS group; H3K27me3: $P < 0.001$, control vs. LPS group), using GSK-J4 inhibit JMJD3 with lower JMJD3 and higher H3K27me3 (JMJD3: $P < 0.05$, LPS vs. LPS + GSK-J4 group; H3K27me3: $P < 0.001$, LPS vs. LPS + GSK-J4 group) ($n = 3$ in each group). **B** In the LPS group, C/EBP β expression was increased, and inhibiting JMJD3 could reduce C/EBP β expression (C/EBP β : $P < 0.05$, control vs. LPS group, $P < 0.05$, LPS vs. LPS+GSK-J4 group), ($n = 3$ in each group). **C** ADORA2A expression increased in LPS-stimulated macrophage and GSK-J4 made it downregulation (ADORA2A: $P < 0.001$, control vs. LPS group, $P < 0.01$, LPS vs. LPS + GSK-J4 group; H3K27me3: $P < 0.001$, control vs. LPS group, $P < 0.01$, LPS vs. LPS + GSK-J4 group) ($n = 3$ in each group). ns indicated no statistical significance, * $P < 0.05$, ** $P < 0.01$, and *** $P < 0.001$. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/36456564>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

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]

Nanduri J, Wang N, Wang Bl, 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]

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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NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
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