

Product Datasheet

JMJD2B Antibody - BSA Free NB100-74605

Unit Size: 100 ul

Store at 4C. Do not freeze.

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NB100-74605

JMJD2B Antibody - BSA Free

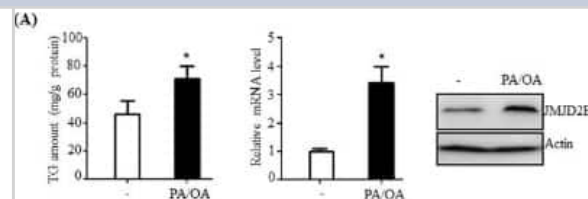
Product Information	
Unit Size	100 ul
Concentration	1.0 mg/ml
Storage	Store at 4C. Do not freeze.
Clonality	Polyclonal
Preservative	0.09% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	Tris-Citrate/Phosphate (pH 7.0 - 8.0)
Target Molecular Weight	122 kDa

Product Description	
Description	Novus Biologicals Rabbit JMJD2B Antibody - BSA Free (NB100-74605) is a polyclonal antibody validated for use in WB and IP. Anti-JMJD2B Antibody: Cited in 5 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	23030
Gene Symbol	KDM4B
Species	Human, Mouse
Immunogen	The immunogen recognized by this antibody maps to a region between residue 1056 and 1096 of human jumonji domain containing 2B using the numbering given in entry NP_055830.1 (GeneID 23030).

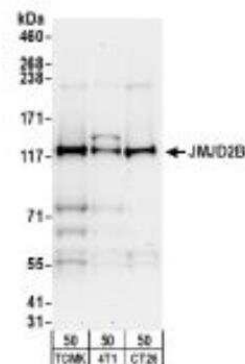
Product Application Details	
Applications	Western Blot, Immunoprecipitation, Knockdown Validated
Recommended Dilutions	Western Blot 1:2000-1:10000, Immunoprecipitation 2-5 ug/mg lysate, Knockdown Validated

Images

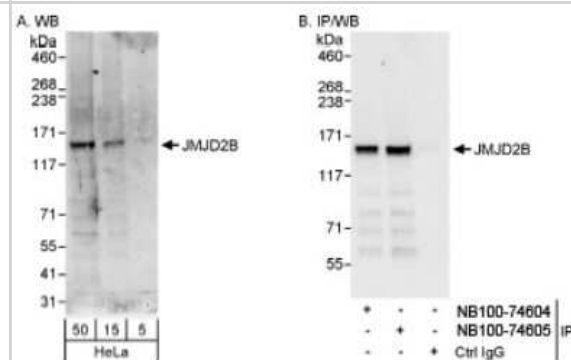
Western Blot: JMJD2B Antibody [NB100-74605] - JMJD2B expression increases in hepatic steatotic cell and animal models. HepG2 cells were incubated with a mixture of palmitic acid (PA) and oleic acid (OA) (1:2 ratio) at 800 uM concentrations for 24 h, and intracellular triglyceride (TG) levels were analyzed by a TG assay kit. JMJD2B mRNA and protein levels were examined by qPCR and western blotting, respectively. Data represent means +/- SEM of three independent experiments performed in triplicate. *p < 0.05 vs. no treatment. The full-length western blots corresponding to truncated blots are presented in Supplementary Figure S1A. Image collected and cropped by CiteAb from the following publication (<https://www.nature.com/articles/s41598-018-31953-x>), licensed under a CC-BY license.



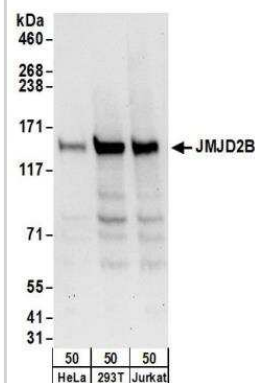
Western Blot: JMJD2B Antibody [NB100-74605] - Whole cell lysate (50 ug) from TCMK-1, 4T1, and CT26.WT cells. Dilution used for WB at 0.5 ug/ml.



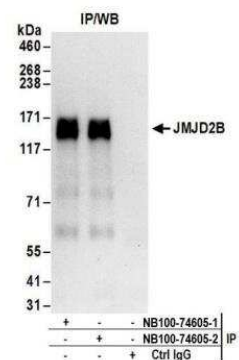
Western Blot: JMJD2B Antibody [NB100-74605] - Detection of Human JMJD2B on HeLa whole cell lysate using NB100-74605. JMJD2B was also immunoprecipitated by rabbit anti-JMJD2B antibody NB100-74604.



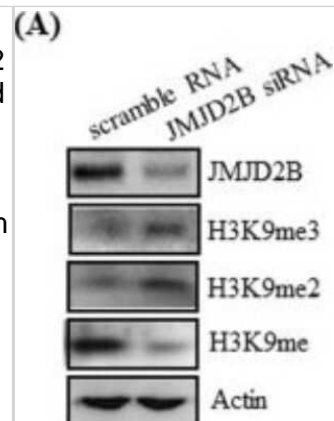
Western Blot: JMJD2B Antibody [NB100-74605] - Detection of Human JMJD2B by Western Blot. Samples: Whole cell lysate (50 ug) from HeLa, 293T, and Jurkat cells. Antibodies: Affinity purified rabbit anti-JMJD2B antibody NB100-74605 used for WB at 0.1 ug/ml. Detection: Chemiluminescence with an exposure time of 30 seconds.



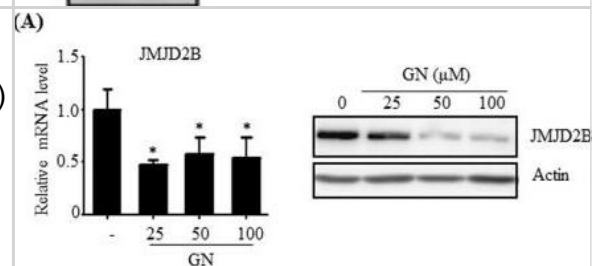
Immunoprecipitation: JMJD2B Antibody [NB100-74605] - Detection of human JMJD2B by western blot of immunoprecipitates. Samples: Whole cell lysate (1 mg for IP; 20% of IP loaded) from HeLa cells. Antibodies: Affinity purified rabbit anti-JMJD2B antibody NB100-74605 (lot NB100-74605-2) used for IP at 6 ug/mg lysate. JMJD2B was also immunoprecipitated by a previous lot (lot NB100-74605-1) of this antibody For blotting immunoprecipitated JMJD2B, NB100-74605 was used at 1 ug/ml. Detection: Chemiluminescence with an exposure time of 10 seconds.



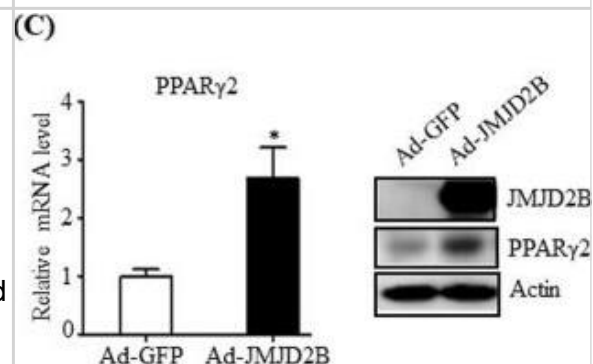
Western Blot: JMJD2B Antibody [NB100-74605] - Knockdown of JMJD2B reduces the intracellular TG level and represses PPAR γ 2 expression in HepG2 cells. HepG2 cells in 6-well plates were transfected with scramble RNA or JMJD2B siRNA. The levels of JMJD2B, H3K9me, H3K9me2, and H3K9me3 were measured by western blotting. The full-length western blots corresponding to truncated blots are presented in Supplementary Figure S3A. Image collected and cropped by CiteAb from the following publication (<https://www.nature.com/articles/s41598-018-31953-x>), licensed under a CC-BY license.



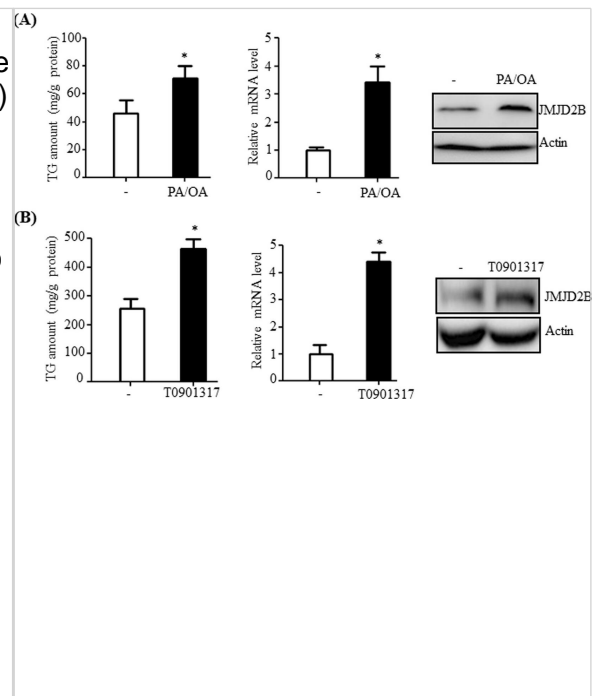
Western Blot: JMJD2B Antibody [NB100-74605] - Gomisins N (GN) represses the expression of JMJD2B, PPAR γ 2, & PPAR γ 2 steatosis target genes in HepG2 cells. HepG2 cells were treated with GN (100 μ M) for 12 h. (A) JMJD2B expression was assessed by qPCR & western blotting. The full-length western blots corresponding to truncated blots are given in Supplementary Figure S4. (B) PPAR γ 2 expression was measured by qPCR. (C,D) The expression of PPAR γ 2 steatosis target genes was assessed by qPCR. Data represent means \pm SEM of three independent experiments performed in triplicate. * p < 0.05 vs. no treatment. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/30214048>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



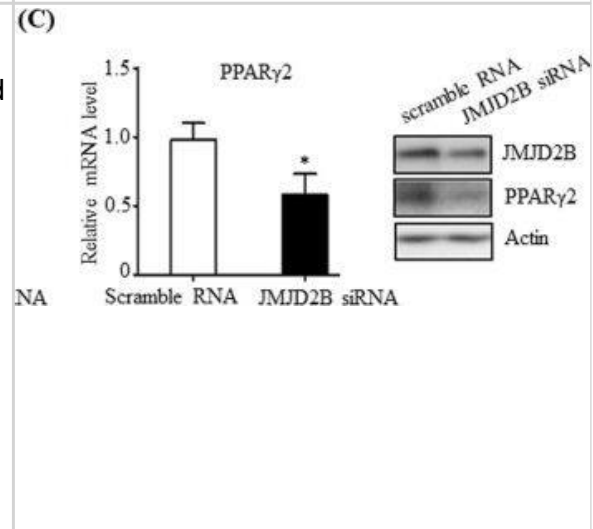
Western Blot: JMJD2B Antibody [NB100-74605] - Overexpression of JMJD2B increases intracellular TG levels & stimulates PPAR γ 2 expression in HepG2 cells. HepG2 cells in 6-well plates were infected with Ad-GFP or Ad-JMJD2B. (A) The levels of JMJD2B, H3K9me, H3K9me2, & H3K9me3 were measured by western blotting. The full-length western blots corresponding to truncated blots are provided in Supplementary Figure S2A. (B) Intracellular TG levels were measured by TG assay kit. (C) PPAR γ 2 expression was assessed by qPCR & western blotting. The full-length western blots corresponding to truncated blots are presented in Supplementary Figure S2B. (D,E) The expression of PPAR γ 2 steatosis target genes was evaluated by qPCR. Data represent means \pm SEM of three independent experiments performed in triplicate. * p < 0.05, ** p < 0.01 vs. Ad-GFP. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/30214048>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



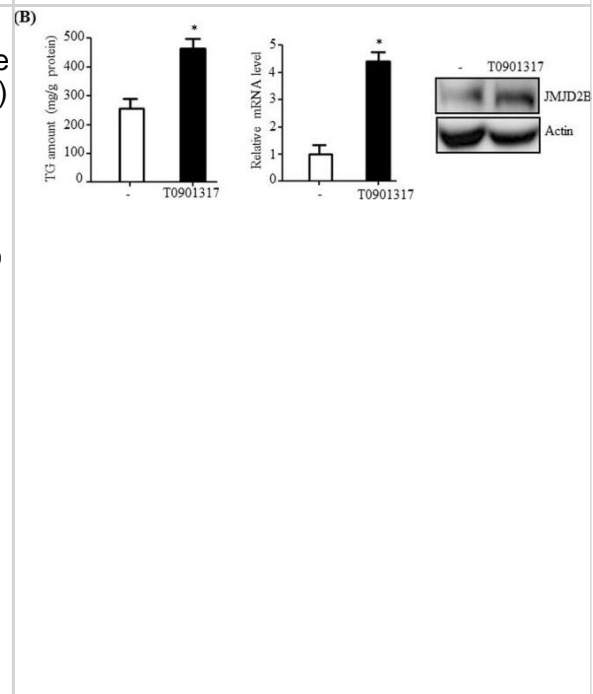
Western Blot: JMJD2B Antibody [NB100-74605] - JMJD2B expression increases in hepatic steatotic cell & animal models. (A) HepG2 cells were incubated with a mixture of palmitic acid (PA) & oleic acid (OA) (1:2 ratio) at 800 μ M concentrations for 24 h, & intracellular triglyceride (TG) levels were analyzed by a TG assay kit. JMJD2B mRNA & protein levels were examined by qPCR & western blotting, respectively. Data represent means \pm SEM of three independent experiments performed in triplicate. * p < 0.05 vs. no treatment. The full-length western blots corresponding to truncated blots are presented in Supplementary Figure S1A. (B) HepG2 cells were treated with T0901317 (10 μ M) for 24 h, & intracellular triglyceride (TG) levels were measured by a TG assay kit. JMJD2B mRNA & protein levels were examined by qPCR & western blotting, respectively. Data represent means \pm SEM of three independent experiments performed in triplicate. * p < 0.05 vs. no treatment. The full-length western blots are presented in Supplementary Figure S1B. (C) Total RNAs were isolated from the livers of HFD-induced obese mice. The JMJD2B mRNA levels were assessed by qPCR. Data represent means \pm SEM of 5 mice. * p < 0.05 vs. ND mice. ND: normal diet. HFD: high fat diet. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/30214048>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



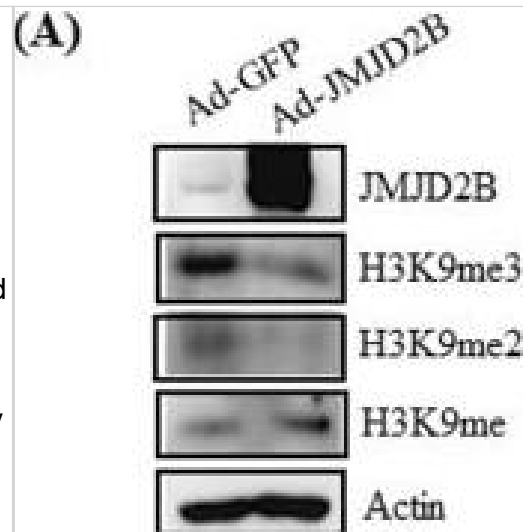
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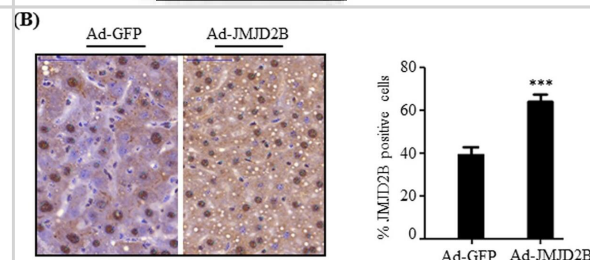
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Western Blot: JMJD2B Antibody [NB100-74605] - Overexpression of JMJD2B increases intracellular TG levels & stimulates PPAR γ 2 expression in HepG2 cells. HepG2 cells in 6-well plates were infected with Ad-GFP or Ad-JMJD2B. (A) The levels of JMJD2B, H3K9me, H3K9me2, & H3K9me3 were measured by western blotting. The full-length western blots corresponding to truncated blots are provided in Supplementary Figure S2A. (B) Intracellular TG levels were measured by TG assay kit. (C) PPAR γ 2 expression was assessed by qPCR & western blotting. The full-length western blots corresponding to truncated blots are presented in Supplementary Figure S2B. (D,E) The expression of PPAR γ 2 steatosis target genes was evaluated by qPCR. Data represent means \pm SEM of three independent experiments performed in triplicate. * p < 0.05, ** p < 0.01 vs. Ad-GFP. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/30214048>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Immunohistochemistry: JMJD2B Antibody [NB100-74605] - Adenovirus-mediated JMJD2B overexpression stimulated hepatic steatosis in vivo. C57BL/6 mice (8 weeks old) were injected with adenovirus Ad-GFP or Ad-JMJD2B. After injection, Ad-injected mice were fed a HFD for 2 weeks. (A) JMJD2B expression was determined by qPCR (B) Immunostaining of JMJD2B (scale bar = 50 μ m). Representative photographs are shown. JMJD2B positive cells were counted in ten random areas at 400 \times magnification & analyzed by using image J. Quantification of immunostaining assay is represented as percentage of JMJD2B positive cells. (C) Hepatic triglyceride (TG) levels were measured by a TG assay kit. (D) Liver morphology, ORO & H&E staining (scale bar = 100 μ m). Representative images are presented. (E) Serum total TG levels. (F) Serum total cholesterol levels. Data represent means \pm SEM from 5 mice. * p < 0.05 vs. Ad-GFP-infected mice. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/30214048>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Kim JH, Jung DY, Nagappan A, Jung MH. Histone H3K9 demethylase JMJD2B induces hepatic steatosis through upregulation of PPAR γ 2. *Sci Rep* 2018-09-13 [PMID: 30214048] (WB, Human)

Xu M, Moresco JJ, Chang M et al. SHMT2 and the BRCC36/BRISC deubiquitinase regulate HIV-1 Tat K63-ubiquitylation and destruction by autophagy *PLoS Pathog.* 2018-05-23 [PMID: 29791506] (Human)

Mallette FA, Mattioli F, Cui G et al. RNF8- and RNF168-dependent degradation of KDM4A/JMJD2A triggers 53BP1 recruitment to DNA damage sites *EMBO J.* 2012-04-01 [PMID: 22373579] (WB, Human)

Toyokawa G, Cho HS, Iwai Y et al. The histone demethylase JMJD2B plays an essential role in human carcinogenesis through positive regulation of cyclin-dependent kinase 6. *Cancer Prev Res (Phila)* 2011-12-01 [PMID: 21930796]

Beyer S, Kristensen MM, Jensen KS et al. The Histone Demethylases JMJD1A JMJD2B Are Transcriptional Targets of Hypoxia-inducible Factor HIF. *J Biol Chem*;283(52):36542-36552. 2008-01-01 [PMID: 18984585]



Novus Biologicals USA

10730 E. Briarwood Avenue
Centennial, CO 80112
USA
Phone: 303.730.1950
Toll Free: 1.888.506.6887
Fax: 303.730.1966
nb-customerservice@bio-techne.com

Bio-Techne Canada

21 Canmotor Ave
Toronto, ON M8Z 4E6
Canada
Phone: 905.827.6400
Toll Free: 855.668.8722
Fax: 905.827.6402
canada.inquires@bio-techne.com

Bio-Techne Ltd

19 Barton Lane
Abingdon Science Park
Abingdon, OX14 3NB, United Kingdom
Phone: (44) (0) 1235 529449
Free Phone: 0800 37 34 15
Fax: (44) (0) 1235 533420
info.EMEA@bio-techne.com

General Contact Information

www.novusbio.com
Technical Support: nb-technical@bio-techne.com
Orders: nb-customerservice@bio-techne.com
General: novus@novusbio.com

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NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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