Product Datasheet

Lysine (K)-specific Demethylase 4A/KDM4A/JMJD2A Antibody
NB110-40585

Unit Size: 0.1 ml

Store at 4C. Do not freeze.

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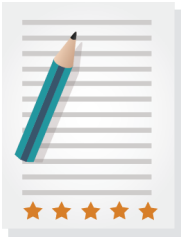
Updated 9/9/2025 v.20.1



NB110-40585

Lysine (K)-specific Demethylase 4A/KDM4A/JMJD2A Antibody

Product Information

Unit Size	0.1 ml
Concentration	0.2 mg/ml
Storage	Store at 4C. Do not freeze.
Clonality	Polyclonal
Preservative	0.09% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	TBS and 0.1% BSA

Product Description

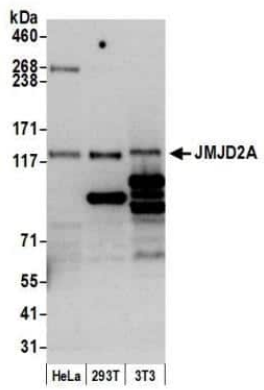
Description	Novus Biologicals Rabbit Lysine (K)-specific Demethylase 4A/KDM4A/JMJD2A Antibody (NB110-40585) is a polyclonal antibody validated for use in WB, ICC/IF and IP. Anti-Lysine (K)-specific Demethylase 4A/KDM4A/JMJD2A Antibody: Cited in 12 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	9682
Gene Symbol	KDM4A
Species	Human, Mouse
Immunogen	The immunogen recognized by this antibody maps to a region between residue 1010 and the C-terminus (residue 1064) of human Jumonji Domain Containing 2A using the numbering given in entry NP_055478.1 (GeneID 9682).

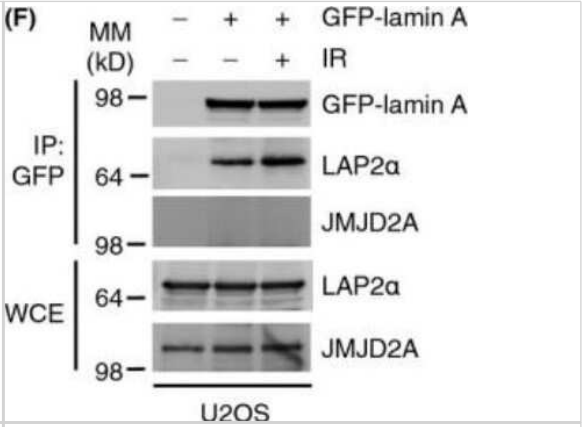
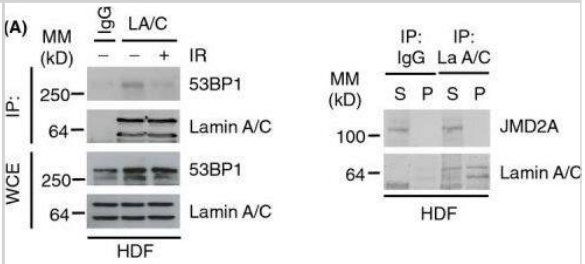
Product Application Details

Applications	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunoprecipitation
Recommended Dilutions	Western Blot 1:2000-1:10000, Immunocytochemistry/ Immunofluorescence 1:10-1:500, Immunoprecipitation 2-5 ug/mg lysate
Application Notes	Use in ICC/IF reported in scientific literature (PMID 22373579), Use Use in ICC/IF reported in scientific literature (25645366).

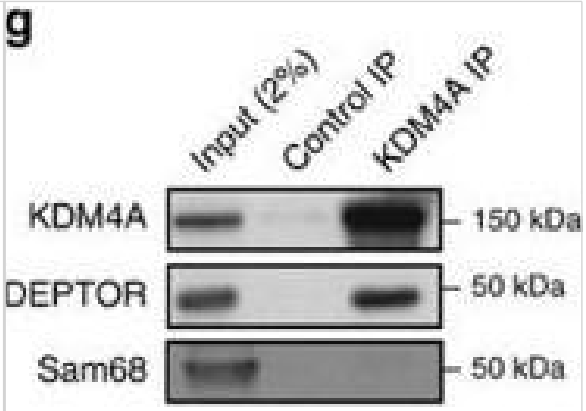
Images

Western Blot: Lysine (K)-specific Demethylase 4A/KDM4A/JMJD2A Antibody [NB110-40585] - Nuclear extract (50 ug) from HeLa, HEK293T, and mouse NIH 3T3 cells prepared using NETN lysis buffer. Antibody: Affinity purified rabbit anti-JMJD2A antibody used for WB at 0.1 ug/ml. Detection: Chemiluminescence with an exposure time of 3 minutes.

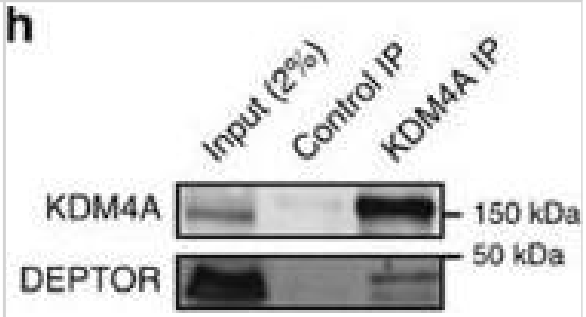


Western Blot: Lysine (K)-specific Demethylase 4A/KDM4A/JMJD2A Antibody [NB110-40585] - Lamins A/C-53BP1 interaction is dependent on the 53BP1 Tudor domain. U2OS/GFP-lamin A cells were subjected to IR (10 Gy) and allowed to recover for 1 h. Cell extracts were then subjected to immunoprecipitation using GFP-Trap beads, and bound complexes were then analyzed by immunoblotting using GFP, LAP2alpha and JMJD2A antibodies. WCE represents 1% input. Image collected and cropped by CiteAb from the following publication (https://doi.wiley.com/10.1111/acel.12258), licensed under a CC-BY license.	
Immunoprecipitation: Lysine (K)-specific Demethylase 4A/KDM4A/JMJD2A Antibody [NB110-40585] - Detection of human Lysine (K)-specific Demethylase 4A/KDM4A/JMJD2A by western blot of immunoprecipitates. Samples: Nuclear Extract (1 mg for IP; 20% of IP loaded) from HEK293T cells. Antibodies: Affinity purified rabbit anti-Lysine (K)-specific Demethylase 4A/KDM4A/JMJD2A antibody NB110-40585 used for IP at 6 ug per reaction. Lysine (K)-specific Demethylase 4A/KDM4A/JMJD2A was also immunoprecipitated by rabbit anti-Lysine (K)-specific Demethylase 4A/KDM4A/JMJD2A antibody NB110-40584. For blotting immunoprecipitated Lysine (K)-specific Demethylase 4A/KDM4A/JMJD2A, NB110-40585 was used at 1 ug/ml. Detection: Chemiluminescence with an exposure time of 30 seconds.	
Lamin A/C-53BP1 interaction is regulated in a DNA damage-dependent manner. (A) Left; HDF were subjected to IR (10 Gy) & allowed to recover for 1 h. Association between A-type lamins & 53BP1 was assessed by immunoprecipitation of endogenous lamin A/C followed by immunoblotting with 53BP1 & lamin A/C antibodies. WCE, whole cell extract, IP: immunoprecipitates. WCE represents 5% input. Right; endogenous lamin A/C was immunoprecipitated & supernatants or pellets were analysed by immunoblotting for interaction with JMJD2A. (B) U2OS/GFP-lamin A cells were pretreated with caffeine (20 mm) for 1 h before exposure to IR (10 Gy, 1 h recovery). Cell extracts were then subjected to immunoprecipitation using GFP-Trap beads, & bound complexes were then analysed by immunoblotting using 53BP1 & GFP antibodies. WCE represents 1% input. (C) As in (C) except cells were pretreated with 10 μm ATMi for 1 h before IR. WCE represents 1% input. (D) U2OS/GFP-lamin A cells were subjected to laser micro-irradiation, fixed 1 h later & immunostained with γ-H2AX antibody. Scale bar, 10 μm. (E) U2OS cells were transfected with siCTRL or siLMNA & subjected to laser micro-irradiation, fixed 15 min later & then processed for immunofluorescence with γ-H2AX & 53BP1 antibodies. Scale bar, 10 μm. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/25645366), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	

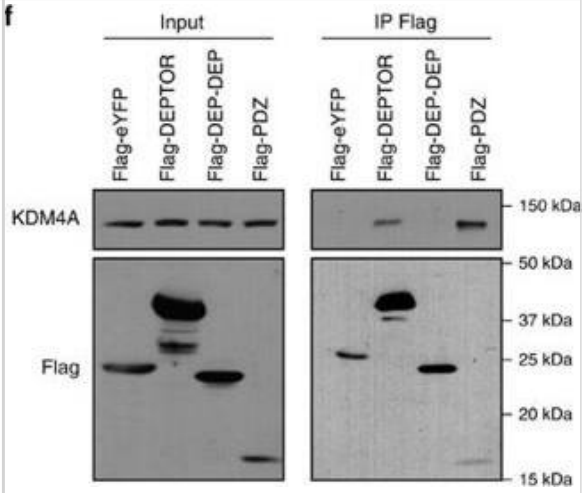
Western Blot: Lysine (K)-specific Demethylase 4A/KDM4A/JMJD2A Antibody [NB110-40585] - KDM4A interacts with the mTORC1/2 complex.(a) Relative mRNA levels of negative & positive regulators of the PTEN/AKT/mTOR pathway following KDM4A depletion. Quantifications of mRNAs by RT–qPCR were normalized against β-actin (ActB) mRNA. Asterisks denote a statistical difference between siKDM4A-treated cells & siGFP control cells, two-sided t-test P<0.05 (graph represents two independent experiences). Error bars represent standard deviation. (b) Co-immunoprecipitation of endogenous mTORC1/2 complex members with Flag-KDM4A in 293T transfected cells. (c) Comparison of mTORC1/2-associated proteins with Flag-tagged mTOR or KDM4A. The 293T cells were transfected with either Flag-eYFP, Flag-KDM4A or Flag-mTOR, & protein lysates were subjected to anti-Flag immunoprecipitation. (d) Co-immunoprecipitation of Flag-KDM4A & HA-DEPTOR in 293T cells. (e) Endogenous KDM4A co-immunoprecipitates with Flag-DEPTOR. (f) DEPTOR PDZ domain associates with endogenous KDM4A. Flag immunoprecipitation of flag-tagged full length or fragments of DEPTOR. The samples were not sonicated in this experiment to confirm that the interaction is independent of nucleus disruption. (g) Endogenous KDM4A & DEPTOR associate in 293E cells. (h) Endogenous KDM4A & DEPTOR co-immunoprecipitate in NHA-hTERT cells. Image collected & cropped by CiteAb from the following publication (https://www.nature.com/articles/ncomms12700), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Western Blot: Lysine (K)-specific Demethylase 4A/KDM4A/JMJD2A Antibody [NB110-40585] - KDM4A interacts with the mTORC1/2 complex.(a) Relative mRNA levels of negative & positive regulators of the PTEN/AKT/mTOR pathway following KDM4A depletion. Quantifications of mRNAs by RT–qPCR were normalized against β-actin (ActB) mRNA. Asterisks denote a statistical difference between siKDM4A-treated cells & siGFP control cells, two-sided t-test P<0.05 (graph represents two independent experiences). Error bars represent standard deviation. (b) Co-immunoprecipitation of endogenous mTORC1/2 complex members with Flag-KDM4A in 293T transfected cells. (c) Comparison of mTORC1/2-associated proteins with Flag-tagged mTOR or KDM4A. The 293T cells were transfected with either Flag-eYFP, Flag-KDM4A or Flag-mTOR, & protein lysates were subjected to anti-Flag immunoprecipitation. (d) Co-immunoprecipitation of Flag-KDM4A & HA-DEPTOR in 293T cells. (e) Endogenous KDM4A co-immunoprecipitates with Flag-DEPTOR. (f) DEPTOR PDZ domain associates with endogenous KDM4A. Flag immunoprecipitation of flag-tagged full length or fragments of DEPTOR. The samples were not sonicated in this experiment to confirm that the interaction is independent of nucleus disruption. (g) Endogenous KDM4A & DEPTOR associate in 293E cells. (h) Endogenous KDM4A & DEPTOR co-immunoprecipitate in NHA-hTERT cells. Image collected & cropped by CiteAb from the following publication (https://www.nature.com/articles/ncomms12700), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Western Blot: Lysine (K)-specific Demethylase 4A/KDM4A/JMJD2A Antibody [NB110-40585] - KDM4A interacts with the mTORC1/2 complex.(a) Relative mRNA levels of negative & positive regulators of the PTEN/AKT/mTOR pathway following KDM4A depletion. Quantifications of mRNAs by RT–qPCR were normalized against β-actin (ActB) mRNA. Asterisks denote a statistical difference between siKDM4A-treated cells & siGFP control cells, two-sided t-test P<0.05 (graph represents two independent experiences). Error bars represent standard deviation. (b) Co-immunoprecipitation of endogenous mTORC1/2 complex members with Flag-KDM4A in 293T transfected cells. (c) Comparison of mTORC1/2-associated proteins with Flag-tagged mTOR or KDM4A. The 293T cells were transfected with either Flag-eYFP, Flag-KDM4A or Flag-mTOR, & protein lysates were subjected to anti-Flag immunoprecipitation. (d) Co-immunoprecipitation of Flag-KDM4A & HA-DEPTOR in 293T cells. (e) Endogenous KDM4A co-immunoprecipitates with Flag-DEPTOR. (f) DEPTOR PDZ domain associates with endogenous KDM4A. Flag immunoprecipitation of flag-tagged full length or fragments of DEPTOR. The samples were not sonicated in this experiment to confirm that the interaction is independent of nucleus disruption. (g) Endogenous KDM4A & DEPTOR associate in 293E cells. (h) Endogenous KDM4A & DEPTOR co-immunoprecipitate in NHA-hTERT cells. Image collected & cropped by CiteAb from the following publication (https://www.nature.com/articles/ncomms12700), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



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Kim TD, Shin S, Berry WL et al. The JMJD2A demethylase regulates apoptosis and proliferation in colon cancer cells. J Cell Biochem 2012-04-01 [PMID: 22134899]

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Mallette FA, Richard S. JMJD2A Promotes Cellular Transformation by Blocking Cellular Senescence through Transcriptional Repression of the Tumor Suppressor CHD5 Cell Rep 2012-11-29 [PMID: 23168260] (WB, Human)

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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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]
NBP2-24891	Rabbit IgG Isotype Control

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