Product Datasheet

METTL14 Antibody - BSA Free
NBP1-81392

Unit Size: 0.1 ml

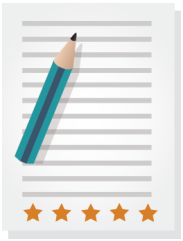
Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

www.novusbio.com technical@novusbio.com

Publications: 10

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
www.novusbio.com/NBP1-81392

Updated 12/2/2025 v.20.1



NBP1-81392

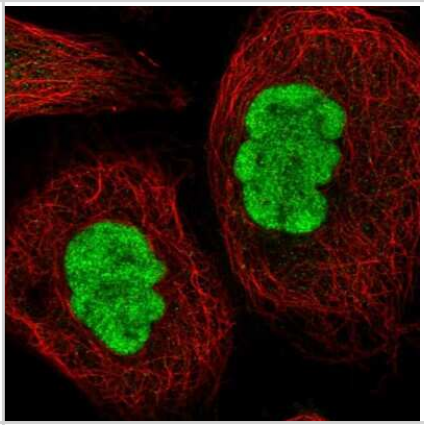
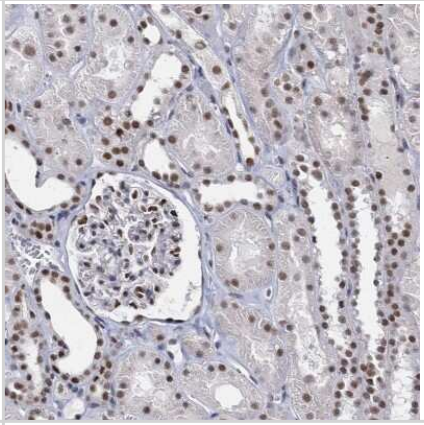
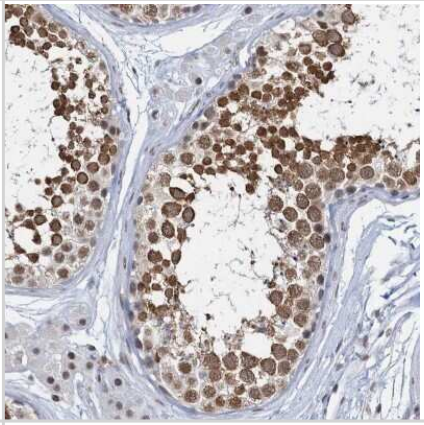
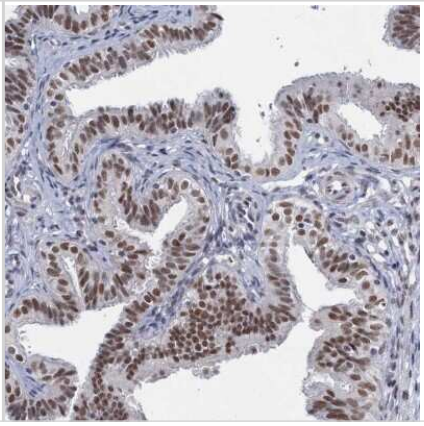
METTL14 Antibody - BSA Free

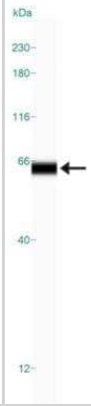
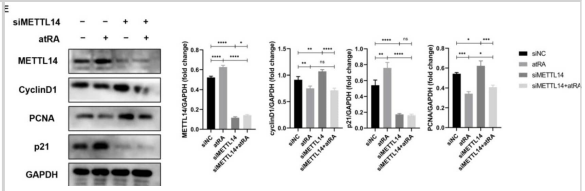
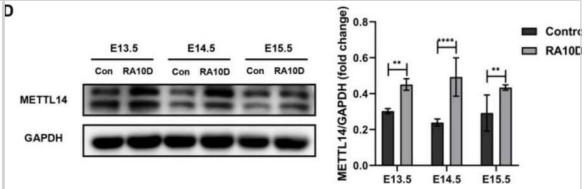
Product Information	
Unit Size	0.1 ml
Concentration	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Affinity purified
Buffer	PBS (pH 7.2) and 40% Glycerol

Product Description	
Description	Novus Biologicals Rabbit METTL14 Antibody - BSA Free (NBP1-81392) is a polyclonal antibody validated for use in IHC, WB, ICC/IF and Simple Western. Anti-METTL14 Antibody: Cited in 10 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	57721
Gene Symbol	METTL14
Species	Human
Immunogen	This antibody was developed against Recombinant Protein corresponding to amino acids: RSWNMDSRLQEIRERQKLRRQLLAQQLGAESADSIGAVLNSKDEQREIAETRE TCRASYDTSAPNAKRKYLDEGETDEDKMEEYKDELEMQQDEE

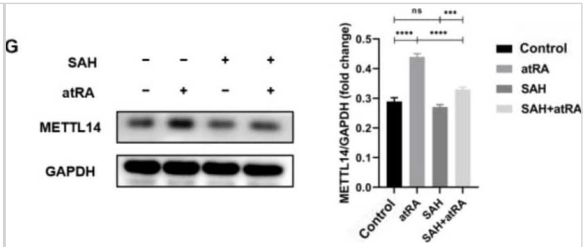
Product Application Details	
Applications	Western Blot, Simple Western, Immunohistochemistry-Paraffin, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry
Recommended Dilutions	Western Blot Reported scientific literature (PMID:26458103), Simple Western 1:20, Immunohistochemistry 1:1000 - 1:2500, Immunocytochemistry/ Immunofluorescence 0.25-2 ug/ml, Immunohistochemistry-Paraffin 1:1000 - 1:2500
Application Notes	ICC/IF Fixation Permeabilization: Use PFA/Triton X-100. IHC-Paraffin HIER pH6 retrieval is recommended. Simple Western only 10 - 15 uL of the recommended dilution is used per data point. See Simple Western Antibody Database for Simple Western validation: Tested in RT-4, NIH-3T3, separated by Size, antibody dilution of 1:20, apparent MW was 64 kDa. Separated by Size-Wes, Sally Sue/Peggy Sue.

Images

Immunocytochemistry/Immunofluorescence: METTL14 Antibody [NBP1-81392] - Staining of human cell line A-431 shows localization to nucleoplasm. Antibody staining is shown in green.	
Immunohistochemistry-Paraffin: METTL14 Antibody [NBP1-81392] - Staining of human kidney shows moderate to strong nuclear positivity in glomeruli and cells in tubules.	
Immunohistochemistry-Paraffin: METTL14 Antibody [NBP1-81392] - Immunohistochemical staining of human testis shows moderate to strong nuclear positivity in cells in seminiferous ducts.	
Immunohistochemistry-Paraffin: METTL14 Antibody [NBP1-81392] - Staining of human fallopian tube shows strong nuclear positivity in glandular cells.	

Simple Western: METTL14 Antibody [NBP1-81392] - Simple Western lane view shows a specific band for METTL14 in 0.2 mg/ml of NIH-3T3 lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.	
Knockdown of METTL14 or inhibition of m6A methylation modification can partially rescue the decline in cell proliferation induced by atRA. qRT-PCR (A) and Western blot (B) detection of the siRNA knockdown efficiency of METTL14. (C) Dot blotting detected the m6A methylation modification level of MEPM cells after treatment with siMETTL14 and atRA. (D) Flow cytometry to detect MEPM cell cycle changes after siMETTL14 and atRA treatments. (E) Western blot detected changes in MEPM cell cycle and proliferation-related proteins after siMETTL14 and atRA treatments. (F) Dot blotting detected m6A methylation modification level after SAH treatment of MEPM. (G) Western blot detection of METTL14 protein expression after SAH treatment of MEPM. (H) CCK8 experiment to detect cell proliferation after SAH and atRA treatments of MEPM. n.s is considered not statistically significant, * means p < 0.05, ** means p < 0.01, *** means p < 0.001, **** means p < 0.0001. Image collected and cropped by CiteAb from the following open publication (https://www.mdpi.com/1422-0067/25/8/4538), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	
Increased m6A level and expression of METTL14 in embryonic palatal mesenchyme were associated with cleft palate. (A) Dot blot was used to detect the m6A modification level of RNA in the palatal mesenchyme of embryonic mice in the control group, RA10D group, and RA12D group. (B) qRT-PCR detection of the expression of m6A methylation modification enzymes in the palatal mesenchyme of embryonic mice in the control group and RA10D group. (C) qRT-PCR detection of METTL14 and WTAP mRNA expression and changes in the palatal mesenchyme of the control group and RA10D group on days E13.5–E15.5. (D) Western blot detection of METTL14 expression in the palatal mesenchyme of embryonic mice in the control group and RA10D group. (E,F) Immunofluorescence detection and semi-quantitative analysis of METTL14 expression in the palatal mesenchyme of embryonic mice in the control group and RA10D group from E13.5 to E15.5 days (green: METTL14, blue: DAPI) (10× magnification). n.s is considered not statistically significant, ** means p < 0.01, *** means p < 0.001, **** means p < 0.0001. Image collected and cropped by CiteAb from the following open publication (https://www.mdpi.com/1422-0067/25/8/4538), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	

Knockdown of METTL14 or inhibition of m6A methylation modification can partially rescue the decline in cell proliferation induced by atRA. qRT-PCR (A) and Western blot (B) detection of the siRNA knockdown efficiency of METTL14. (C) Dot blotting detected the m6A methylation modification level of MEPM cells after treatment with siMETTL14 and atRA. (D) Flow cytometry to detect MEPM cell cycle changes after siMETTL14 and atRA treatments. (E) Western blot detected changes in MEPM cell cycle and proliferation-related proteins after siMETTL14 and atRA treatments. (F) Dot blotting detected m6A methylation modification level after SAH treatment of MEPM. (G) Western blot detection of METTL14 protein expression after SAH treatment of MEPM. (H) CCK8 experiment to detect cell proliferation after SAH and atRA treatments of MEPM. n.s is considered not statistically significant, * means $p < 0.05$, ** means $p < 0.01$, *** means $p < 0.001$, **** means $p < 0.0001$. Image collected and cropped by CiteAb from the following open publication (https://www.mdpi.com/1422-0067/25/8/4538), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



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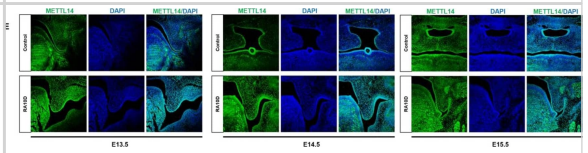
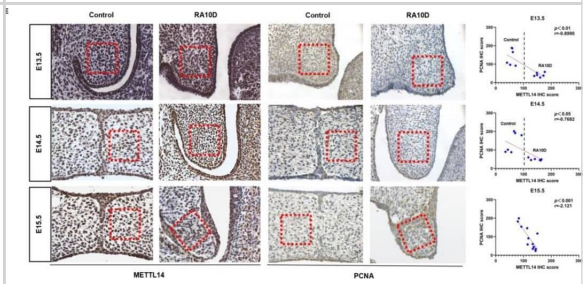


Inhibition of mesenchymal cell proliferation in cleft palate mice may be related to the abnormal expression of METTL14. (A) Western blot detection of the proliferation and cell cycle-related differential genes of palatal mesenchyme cells in the control group and RA10D cleft palate group on days E13.5, E14.5, and E15.5. ki67 immunofluorescence detection of cell proliferation levels in the palatal mesenchyme of embryonic mice in the control and RA10D/R zA12D cleft palate groups on days E13.5 (B), E14.5 (C), and E15.5 (D) (green: ki67, blue: DAPI) (10× magnification). (E) Immunohistochemical detection of METTL14 and PCNA expression in the palatal mesenchyme of embryonic mice in the control group and RA10D cleft palate group. n.s is considered not statistically significant, * means $p < 0.05$, ** means $p < 0.01$, *** means $p < 0.001$, **** means $p < 0.0001$. Image collected and cropped by CiteAb from the following open publication (https://www.mdpi.com/1422-0067/25/8/4538), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Foucault, L;Capeliez, T;Angonin, D;Lentini, C;Bezin, L;Heinrich, C;Parras, C;Donega, V;Marcy, G;Raineteau, O; Neonatal brain injury unravels transcriptional and signaling changes underlying the reactivation of cortical progenitors Cell reports 2024-02-12 [PMID: 38349790]

Xiao L, De Jesus DF, Ju CW, Wei JB et Al. m(6)A mRNA methylation in brown fat regulates systemic insulin sensitivity via an inter-organ prostaglandin signaling axis independent of UCP1 Cell Metab 2024-09-10 [PMID: 39255799]

Zhu Y, Zhang Y, Jiang Y et Al. Retinoic Acid Upregulates METTL14 Expression and the m(6)A Modification Level to Inhibit the Proliferation of Embryonic Palate Mesenchymal Cells in Cleft Palate Mice Int J Mol Sci 2024-04-20 [PMID: 38674123]

Jiang C, Trudeau S. J, et al. CRISPR/Cas9 Screens Reveal Multiple Layers of B cell CD40 Regulation. Cell Rep 2019 -07-30 [PMID: 31365872] (WB, Human)

Jian D, Wang Y, Jian L et al. METTL14 aggravates endothelial inflammation and atherosclerosis by increasing FOXO1 N6-methyladeosine modifications Theranostics 2020-07-11 [PMID: 32802173] (Human)

Winkler R, Gillis E, Lasman L et al. m6A modification controls the innate immune response to infection by targeting type I interferons Nat. Immunol. 2018-12-17 [PMID: 30559377] (WB, Human)

Zhou J, Wan J, Gao X et al. Dynamic m6A mRNA methylation directs translational control of heat shock response. Nature. 2015-10-12 [PMID: 26458103] (ICC/IF, WB, Human)

Liu N, Dai Q, Zheng G et al. N6-methyladenosine-dependent RNA structural switches regulate RNA-protein interactions. Nature 2015-02-26 [PMID: 25719671] (WB, Human)

Wang Y, Li Y, Toth JI et al. N6-methyladenosine modification destabilizes developmental regulators in embryonic stem cells. Nat Cell Biol 2014-02-01 [PMID: 24394384]

Liu J, Yue Y, Han D et al. A METTL3-METTL14 complex mediates mammalian nuclear RNA N6-adenosine methylation. Nat Chem Biol 2014-02-01 [PMID: 24316715]

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

Products Related to NBP1-81392

NBP1-81392PEP	METTL14 Recombinant Protein Antigen
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

Limitations

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