

# Product Datasheet

## **Dnmt3a Antibody** **NB120-13888SS**

Unit Size: 0.025 mg

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

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Updated 6/15/2014 v.20.1

**NB120-13888SS**

Dnmt3a Antibody (64B1446)

| Product Information |  |
|---------------------|--|
| Unit Size           | 0.025 mg   |
| Concentration       | 0.5 mg/ml  |
| Storage             | Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles. |
| Clonality           | Monoclonal   |
| Clone               | 64B1446  |
| Preservative        | 0.05% Sodium Azide   |
| Isotype             | IgG1 Kappa   |
| Purity              | Protein G purified   |
| Buffer              | PBS containing 0.05% BSA   |

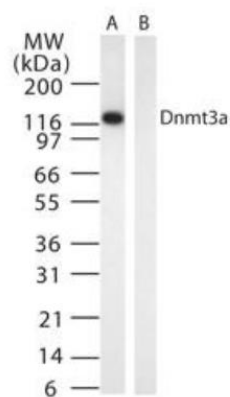
| Product Description |  |
|---------------------|--|
| Host                | Mouse  |
| Gene ID             | 1788   |
| Gene Symbol         | DNMT3A   |
| Species             | Human, Mouse   |
| Species Reactivity  | Cross-reacts with Human (weakly) and Mouse. Not yet tested in other species.   |
| Immunogen           | This antibody was raised against bacteria expressed recombinant mouse Dnmt3a. The epitope was found to lie near the C-terminus (a.a. 705-908), see Chen et (2002) for details. |

| Product Application Details |  |
|-----------------------------|--|
| Applications                | Western Blot, Chromatin Immunoprecipitation, Flow Cytometry, Immunocytochemistry/Immunofluorescence, Immunohistochemistry-Paraffin   |
| Recommended Dilutions       | Chromatin Immunoprecipitation, Flow Cytometry 1 ug per million cells, Immunocytochemistry/Immunofluorescence 1:10-1:500, Immunohistochemistry-Paraffin 5 ug/ml, Western Blot 2 ug/ml   |
| Application Notes           | Western Blot: Detects a band of approximately 120 kDa (predicted molecular weight: 102 kDa). Staining of formalin-fixed tissues is enhanced by boiling tissue sections in 10 mM sodium citrate buffer, pH 6.0 for 10-20 min followed by cooling at RT for 20 min. Use in chromatin immunoprecipitation reported in scientific literature (PMID 24623306) |

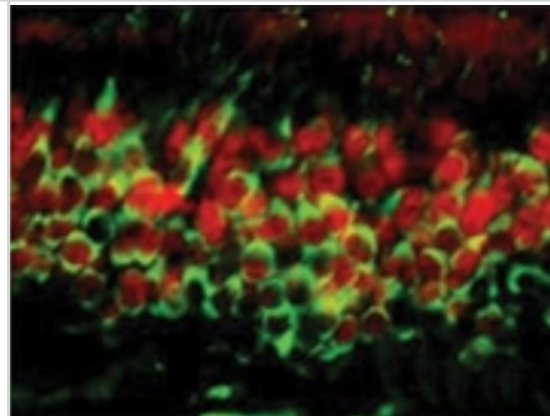


## Images

Western Blot: Dnmt3a Antibody (64B1446) [NB120-13888] - Analysis of (A) Dnmt3a transfected 293 cell lysate and (B) untransfected 293 cell lysate using Dnmt3a antibody at 1 ug/ml.

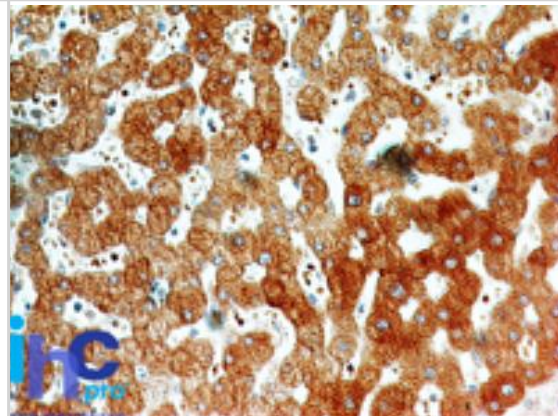


Immunocytochemistry/Immunofluorescence: Dnmt3a Antibody (64B1446) [NB120-13888] - Expression of Dnmt3a in the nuclei of post-mitotic neurons in the olfactory epithelium (OE). DNMT3a (red) is co-expressed with neuron-specific tubulin (green) throughout the development of the olfactory epithelium. (Data courtesy of A. Jane Roskams, University of British Columbia).

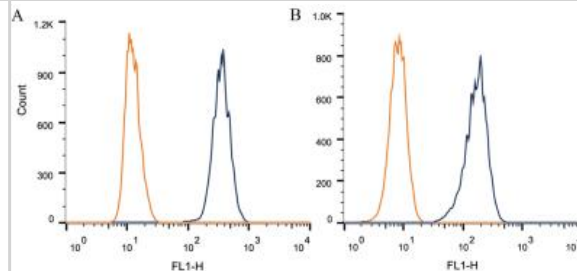


Immunohistochemistry-Paraffin: Dnmt3a Antibody (64B1446) [NB120-13888] - Formalin-fixed, paraffin-embedded human liver stained with Dnmt3a antibody at 5 ug/ml.

Staining of formalin-fixed tissues is enhanced by boiling tissue sections in 10 mM sodium citrate buffer, pH 6.0 for 10-20 min followed by cooling at RT for 20 min.



Flow Cytometry: Dnmt3a Antibody (64B1446) [NB120-13888] - Intracellular flow cytometric staining of  $1 \times 10^6$  CHO (A) and HEK-293 (B) cells using Dnmt3a antibody (dark blue). Isotype control shown in orange. An antibody concentration of 1 ug/ $1 \times 10^6$  cells was used.



## Publications

Paredes-Gonzalez X, Fuentes F, Su ZY, Kong AN. Apigenin Reactivates Nrf2 Anti-oxidative Stress Signaling in Mouse Skin Epidermal JB6 P + Cells Through Epigenetics Modifications. AAPS J. 2014 May 16 [PMID: 24830944] (WB, Mouse)

Serra FW, Fang M, Park SM et al. A KRAS-directed transcriptional silencing pathway that mediates the CpG island methylator phenotype. Elife 2014 [PMID: 24623306] (ChIP, Human)

Obata Y, Wakai T, Hara S, Kono T et al. Long exposure to mature ooplasm can alter DNA methylation at imprinted loci in non-growing oocytes but not in prospermatogonia. Reproduction. 2014 Jan 1 [PMID: 24123131] (ICC/IF, Mouse)

Hara S, Takano T, Ogata M et al. Establishment of a Conditional Transgenic System Using the 2A Peptide in the Female Mouse Germline. J. Reprod. Dev. 2014 Mar 15 [PMID: 24632680] (WB, Mouse)

Hara S, Takano T, Fujikawa T et al. Forced expression of DNA methyltransferases during oocyte growth accelerates the establishment of methylation imprints but not functional genomic imprinting. Hum. Mol. Genet. 2014 Mar 18 [PMID: 24599402] (WB, Mouse)

Zhou JX, Dhawan S, Fu H et al. Combined modulation of polycomb and trithorax genes rejuvenates beta cell replication. J Clin Invest 2013 Oct 8 [PMID: 24216481] (WB, Mouse)

Wongtrakoongate P, Li J, Andrews PW. DNMT3B inhibits the re-expression of genes associated with induced pluripotency. Exp Cell Res 2013 Dec 10 [PMID: 24333507] (WB, Human)

Hara ES1, Ono M1, Eguchi T2 et al. miRNA-720 Controls Stem Cell Phenotype, Proliferation and Differentiation of Human Dental Pulp Cells. PLoS One 2013 Dec 30 [PMID: 24386225] (ICC/IF, Human)

MacDonald JL, Gin CS, Roskams AJ. Stage-specific induction of DNA methyltransferases in olfactory receptor neuron development. Dev Biol. 2005 Dec 15 [PMID: 16288735]

Hong GM, Bain LJ. Sodium arsenite represses the expression of myogenin in C2C12 mouse myoblast cells through histone modifications and altered expression of Ezh2, Glp, and Igf-1. Toxicol Appl Pharmacol. 2012 May 1 [PMID: 22426358]

Ueda Y, Okano M, Williams C et al. Roles for Dnmt3b in mammalian development: a mouse model for the ICF syndrome. Development. 2006 Mar [PMID: 16501171]

Weisenberger DJ, Velicescu M, Cheng JC et al. Role of the DNA methyltransferase variant DNMT3b3 in DNA methylation. Mol Cancer Res. 2004 Jan [PMID: 14757847]

More publications at <http://www.novusbio.com/NB120-13888>





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### **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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