

# Product Datasheet

## G9a/EHMT2 Antibody NBP2-13948

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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Updated 1/18/2024 v.20.1

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**NBP2-13948****G9a/EHMT2 Antibody****Product Information**

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

**Product Description**

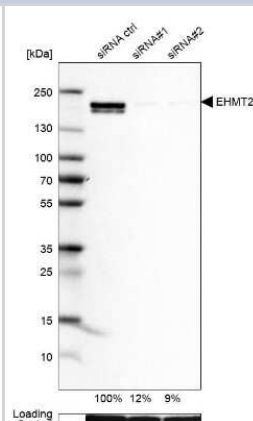
<b>Host</b>	Rabbit
<b>Gene ID</b>	10919
<b>Gene Symbol</b>	EHMT2
<b>Species</b>	Human, Mouse
<b>Reactivity Notes</b>	Human reactivity reported in scientific literature (PMID: 25605796). Mouse cell lysates reactivity reported from a verified customer review.
<b>Immunogen</b>	This antibody was developed against a recombinant protein corresponding to the amino acids: TAAPAPPPLSQDVPGRADTSQPSARMRGHGEP RRRPPCDPLADTIDSSGPSLTL PNGGCLSAVGLPLGPGREALEKALVIQESERRKKLR

**Product Application Details**

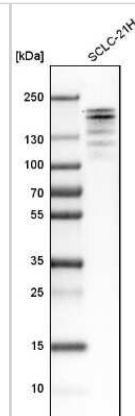
<b>Applications</b>	Western Blot, Knockdown Validated
<b>Recommended Dilutions</b>	Western Blot 0.04-0.4 ug/ml, Knockdown Validated
<b>Application Notes</b>	Knockdown validation (PMID: 30858340).

**Images**

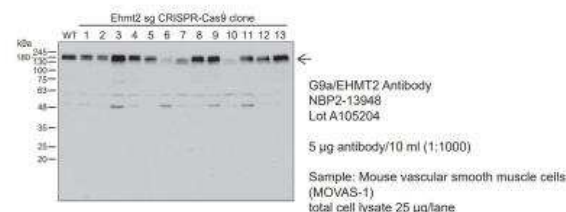
Western Blot: G9a/EHMT2 Antibody [NBP2-13948] - Analysis in HEK293 cells transfected with control siRNA, target specific siRNA probe #1 and #2,. Remaining relative intensity is presented. Loading control: Anti-GAPDH.



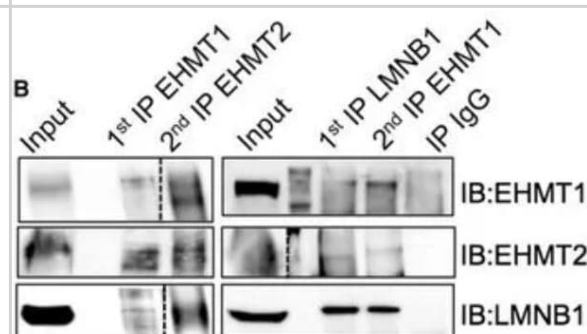
Western Blot: G9a/EHMT2 Antibody [NBP2-13948] - Analysis in human cell line SCLC-21H.



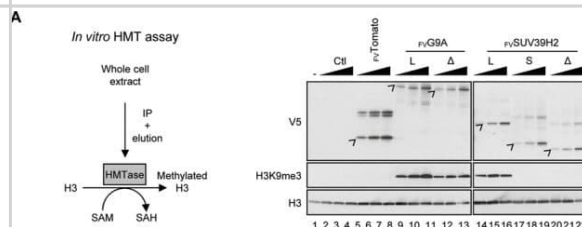
Western Blot: G9a/EHMT2 Antibody [NBP2-13948] - Mouse cell lysates. Image submitted by a verified customer review.



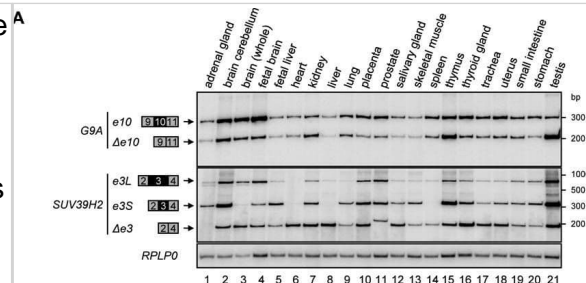
Western Blot: G9a/EHMT2 Antibody [NBP2-13948] - Sequential IP in HEK293 cells demonstrating G9a/EHMT1 (NBP1-77400), G9a/EHMT2 (NBP2-13948), and LMNB1 are a part of the same complex. The dotted line indicates spliced lane from two different exposures of the same gel. Image collected and cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/30858340/>) licensed under a CC-BY license.



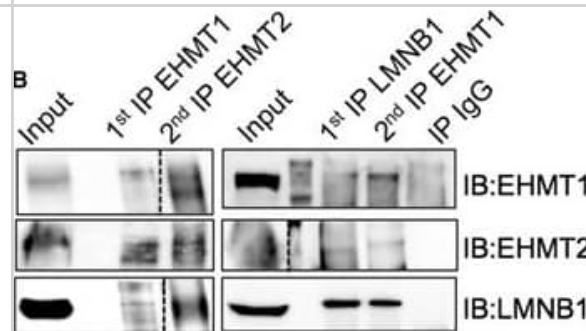
Immunohistochemical detection of HIF-1 $\alpha$  protein in human tissues. The nature of the tissue is indicated on top of each figure. Original magnifications are as follows: A,  $\times 400$ ; B,  $\times 400$ ; C,  $\times 100$ ; D,  $\times 100$ ; E,  $\times 100$ ; F,  $\times 100$ ; G,  $\times 40$ ; H,  $\times 40$ . Image collected and cropped by CiteAb from the following open publication (<https://bmccgenet.biomedcentral.com/articles/10.1186/1471-2156-5-27>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



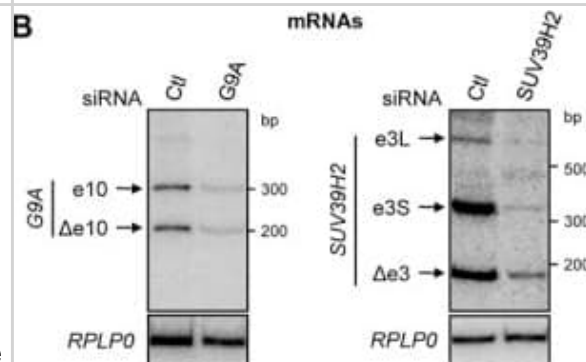
HIF protein stabilization and HIF-1 $\alpha$  transcriptional activity. Representative western blot showing protein levels of HIF-1 $\alpha$  and HIF-2 $\alpha$  (n = 3) in (A) cardiomyocytes derived from R1 and R1HIF-1 $\alpha$ -/- mESC exposed to 1% O<sub>2</sub> and (B) cardiomyocytes derived from HG8 mESC exposed to 1% O<sub>2</sub> and DMOG. Cropped representative western blots are shown from total of n = 3. mRNA levels of (C) Glut1 and (D) VEGF in cardiomyocytes derived from HG8 mESC exposed to 1% O<sub>2</sub> or DMOG determined by qRT-PCR (n = 3). Data are presented as 2- $\Delta\Delta C_q \pm$  SEM (groups were compared using one-way ANOVA with the Tukey (HSD) post hoc test \*p < 0.05). Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/29137374>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Hypoxia causes DNA damage in patient-derived colonosphere cultures in vitro. (a) Two independent patient-derived colonospheres were cultured in normoxia (21%) or hypoxia (0.1%) for 24 hours. Immunofluorescence was then used to assess  $\gamma$ H2AX (green) in the nuclei DAPI (blue). (b) Bar graphs showing the quantification of  $\gamma$ H2AX observed in (a) (n=3), shown as percentage of the mean  $\gamma$ H2AX intensity at normoxia. (c) Representative confocal pictures of the comet assay of colonospheres cultured as in (a). (d) Bar graphs showing the quantification of DNA damage observed with the comet assay (Extend tail moment) (n=73). (e) Colonospheres were cultured as in (a) and  $\gamma$ H2AX was assessed by FACS. The plots show normoxic  $\gamma$ H2AX levels in red and hypoxic  $\gamma$ H2AX levels in blue in two independent cell lines. (f) Human colonospheres were exposed to hypoxia for the indicated periods of time. Cell lysates were then analyzed by Western blotting for the indicated markers (cropped). Image collected and cropped by CiteAb from the following open publication (<https://www.oncotarget.com/lookup/doi/10.18632/oncotarget.21145>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Relation of OGT-TET1 interaction on histone methylation and Nrf2 expression in SNUC5/5-FUR cells. A. Interaction between OGT and TET1 was examined by immunoprecipitation analyses using anti-OGT and anti-TET1 antibodies followed by Western blotting with anti-TET1 and anti-OGT antibodies. B. Interaction between OGT and TET1 was assessed by using PLA. Each green spot represents for a single interaction (OGT and TET1) and DNA was stained with DAPI. \*Significantly different from SNUC5 cells (p<0.05). C. The O-GlcNAcylated TET1 or O-GlcNAcylated OGT was examined by immunoprecipitation analyses using anti-O-GlcNAc antibody followed by Western blotting with anti-TET1 and anti-OGT antibodies. The cells were transfected with non-targeting siRNA (siControl) or siOGT RNA or siTET1 RNA for 24 h. D. Expression pattern of OGT and TET1 in SNUC5/5-FUR cells was determined by Western blot analysis. \*Significantly different from siControl-transfected cells (p<0.05). E. Expression pattern of TET1, OGT, HCF1, MLL, and Nrf2 in SNUC5/5-FUR cells was determined by Western blot analysis. \*Significantly different from siControl-transfected cells (p<0.05). Image collected and cropped by CiteAb from the following open publication (<https://www.oncotarget.com/lookup/doi/10.18632/oncotarget.9745>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



## Publications

Besschetnova A, Han W, Liu M et al. Demethylation of EHMT1/GLP Protein Reprograms Its Transcriptional Activity and Promotes Prostate Cancer Progression Cancer Research Communications 2023-08-31 [PMID: 37663929]

Rao RA, Ketkar AA, Kedia N, Krishnamoorthy VK, et al. KMT1 family methyltransferases regulate heterochromatin-nuclear periphery tethering via histone and non-histone protein methylation EMBO 2019-01-24 [PMID: 30858340] (WB, KD, WB, KD, Human)

Mauger O, Klinck R, Chabot B et al. Alternative splicing regulates the expression of G9A and SUV39H2 methyltransferases, and dramatically changes SUV39H2 functions. Nucleic Acids Res 2015-02-18 [PMID: 25605796] (WB, Human)





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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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