abcam

ab185050

Anti-EHMT2/G9A antibody [EPR18894] - ChIP Grade

Anti-EHMT2/G9A antibody [EPR18894] - ChIP Grade (ab185050) is a rabbit monoclonal antibody detecting EHMT2/G9A in **Western Blot, Flow Cytometry (Intra), IP, IHC-P, ICC/IF, ChIP-seq, ChIC/CUT&RUN-seq**. Suitable for **Human, Mouse, Rat**.

- KO validated for confirmed specificity
- Biophysical QC for unrivalled batch-batch consistency
- Over 30 publications

Recombinant | RabMAb | Advanced Validation | KO Validated | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR18894
Purification technique	Affinity purification Protein A
Concentration	0.556 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ChIC/CUT&RUN-seq

Tested

Species	Human
Dilution info	5 µg
Notes	-

Expected

Species	Mouse
Dilution info	5 µg
Notes	-

Species	Rat
Dilution info	5 µg
Notes	-

IP

Tested

Species	Human
Dilution info	1/50
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

WB

Tested

Species	Mouse
Dilution info	1/1000
Notes	-

Species	Rat
Dilution info	1/1000
Notes	-

Species	Human
Dilution info	1/1000
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/1000
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

ChIP-seq

Tested

Species	Human
Dilution info	8 µg for 10^7 Cells
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/150
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-P

Tested

Species	Mouse
Dilution info	1/500
Notes	-

Species	Rat
Dilution info	1/500
Notes	-

Species	Human
Dilution info	1/500
Notes	-

Target data

See full target information EHMT2

Function Histone methyltransferase that specifically mono- and dimethylates 'Lys-9' of histone H3 (H3K9me1 and H3K9me2, respectively) in euchromatin. H3K9me represents a specific tag for epigenetic transcriptional repression by recruiting HP1 proteins to methylated histones (PubMed:11316813, PubMed:20084102). Also mediates monomethylation of 'Lys-56' of histone H3 (H3K56me1) in G1 phase,

leading to promote interaction between histone H3 and PCNA and regulating DNA replication (PubMed:22387026). Also weakly methylates 'Lys-27' of histone H3 (H3K27me) (PubMed:11316813). Also required for DNA methylation, the histone methyltransferase activity is not required for DNA methylation, suggesting that these 2 activities function independently. Probably targeted to histone H3 by different DNA-binding proteins like E2F6, MGA, MAX and/or DP1. Also able to mono- and dimethylate histone H1-4 at 'Lys-26' (H1.4K26me1 and H1.4K26me2, respectively) (PubMed:19144645). In addition to the histone methyltransferase activity, also methylates non-histone proteins: mediates dimethylation of 'Lys-373' of p53/TP53 (PubMed:20118233). Also methylates CDYL, WIZ, ACIN1, DNMT1, HDAC1, ERCC6, KLF12 and itself (PubMed:18438403).

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

What is this antibody validated in?
Anti-EHMT2/G9A antibody [EPR18894] - ChIP Grade (ab185050) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Flow Cytometry (Flow Cyt), Immunoprecipitation (IP), Immunohistochemistry (IHC-P), Immunocytochemistry/immunofluorescence (ICC/IF), ChIP in Human, Mouse, Rat samples.

What is the molecular weight of EHMT2/G9A?
Anti-EHMT2/G9A [EPR18894] - ChIP Grade (ab185050) specifically detects a band for EHMT2/G9A (UniProt: Q96KQ7) at a molecular weight of 132kDa.

Trusted by the scientific community
Anti-EHMT2/G9A [EPR18894] - ChIP Grade (ab185050) was first used in a scientific publication in 2015 and has been cited over 30 times in peer-reviewed journals.

Specificity confirmed
The specificity of Anti-EHMT2/G9A antibody [EPR18894] - ChIP Grade (ab185050) has been confirmed by Western blot testing in EHMT2 Knockout HAP1 cell line, ab265149.

Other related products
We have a range of other formats of antibody clone [EPR18894] also available for your convenience: ab185050, Alexa Fluor® 488 - ab218359, Carrier free - ab240289

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Trial sizes available!
Test your antibody or perform pre-screening before committing to a larger quantity. Sold in 20µl. Discover our selection of trial-size antibodies.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	EHMT2 also known as G9a is a methyltransferase enzyme with a molecular mass of approximately 165 kDa. It modifies histones by adding methyl groups to lysine 9 on histone H3 which results in chromatin structure changes and influences gene expression. EHMT2/G9a expresses in various tissues including brain heart and liver showing its widespread role in different physiological processes. As a well-studied protein researchers often analyze EHMT2 activity using assays like ELISA and western blot.
Biological function summary	EHMT2/G9a regulates gene expression by altering chromatin accessibility. It is part of a chromatin remodeling complex interacting with proteins such as ANMTA02. Through its methyltransferase activity it maintains an epigenetic silence state important for embryonic development differentiation and cellular identity. EHMT2/G9a plays a significant role in the repression of transcriptional activity of tumor suppressor genes and developmental genes.
Pathways	G9a functions in epigenetic signaling pathways and influences processes like the cell cycle and DNA damage repair. It interacts with proteins in the Polycomb repressive complex such as EZH2 to regulate gene silencing. Additionally in the DNA damage response pathway G9a can associate with histone deacetylases to stabilize chromatin and prevent unwarranted gene expression.
Associated diseases and disorders	Aberrant regulation of EHMT2/G9a associates with cancer and neurodevelopmental disorders. In various cancers such as leukemia G9a suppresses tumor suppressor genes aiding tumor progression. Connections between G9a and proteins like DNMT1 highlight its role in maintaining a hypermethylation state in cancerous cells. In neurodevelopmental disorders

altered expression of G9a affects synaptic plasticity linking it with cognitive impairments and autism spectrum disorders.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

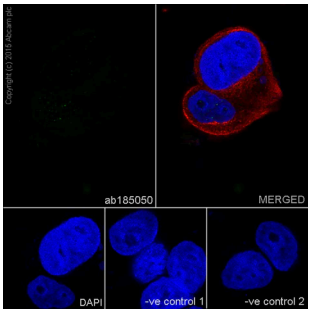
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

19 product images



Immunocytochemistry/ Immunofluorescence - Anti-EHMT2/G9A antibody [EPR18894] - ChIP Grade (ab185050)

EHMT2/G9A Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-EHMT2/G9A antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized MCF7 (Human breast adenocarcinoma cell line) cells labeling EHMT2/G9A with ab185050 at 1/100 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green).
Confocal image showing no staining on MCF7 cell line, as MCF7 cells have a very low level expression of EHMT2/G9A.

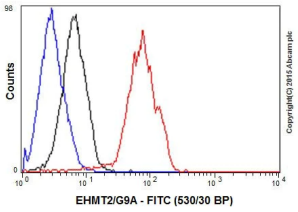
The nuclear counterstain is DAPI (blue).

Tubulin is detected with ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution and ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/1000 dilution (red).

The negative controls are as follows:-

-ve control 1: ab185050 at 1/70 dilution followed by ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/1000 dilution.

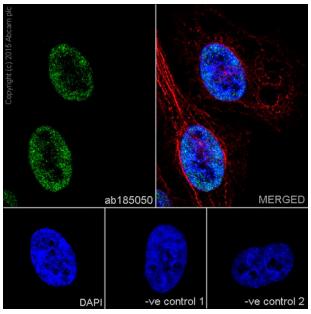
-ve control 2: ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution followed by ab150077 (Alexa Fluor®488 Goat Anti-Rabbit IgG H&L) at 1/1000 dilution.



Flow Cytometry (Intracellular) - Anti-EHMT2/G9A antibody [EPR18894] - ChIP Grade (ab185050)

EHMT2/G9A Flow Cytometry (Intracellular) staining using rabbit Anti-EHMT2/G9A antibody

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed HeLa (Human epithelial cells from cervix adenocarcinoma) cells labeling EHMT2/G9Awith ab185050 at 1/150 dilution (red) compared with a rabbit monoclonal IgG isotype control (ab172730; black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody; blue). Goat anti rabbit IgG (FITC) at 1/150 dilution was used as the secondary antibody.



Immunocytochemistry/ Immunofluorescence - Anti-EHMT2/G9A antibody [EPR18894] - ChIP Grade (ab185050)

EHMT2/G9A Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-EHMT2/G9A antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (Human epithelial cells from cervix adenocarcinoma) cells labeling EHMT2/G9A with ab185050 at 1/1000 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green).
Confocal image showing nuclear staining on HeLa cell line.

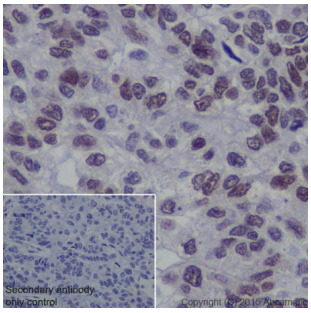
The nuclear counterstain is DAPI (blue).

Tubulin is detected with ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution and ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/1000 dilution (red).

The negative controls are as follows:-

-ve control 1: ab185050 at 1/1000 dilution followed by ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/1000 dilution.

-ve control 2: ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution followed by ab150077 (Alexa Fluor®488 Goat Anti-Rabbit IgG H&L) at 1/1000 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-EHMT2/G9A antibody [EPR18894] - ChIP Grade (ab185050)

EHMT2/G9A Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-EHMT2/G9A antibody

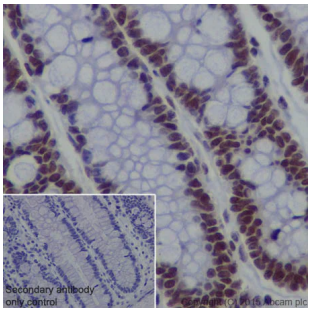
Immunohistochemical analysis of paraffin-embedded Human gastric adenocarcinoma tissue labeling EHMT2/G9A with ab185050 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Nucleus staining on tumor cells of the gastric adenocarcinoma is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-EHMT2/G9A antibody [EPR18894] - ChIP Grade (ab185050)

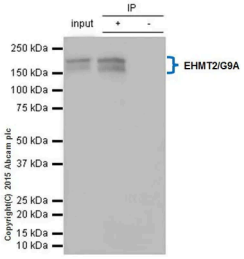
EHMT2/G9A Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-EHMT2/G9A antibody

Immunohistochemical analysis of paraffin-embedded Human colon tissue labeling EHMT2/G9A with ab185050 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.
Nucleus staining on epithelial cells of the normal Human colon is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunoprecipitation - Anti-EHMT2/G9A antibody [EPR18894] - ChIP Grade (ab185050)

EHMT2/G9A was immunoprecipitated from 1mg of HeLa (Human epithelial cells from cervix adenocarcinoma) whole cell lysate with ab185050 at 1/50 dilution.
Western blot was performed from the immunoprecipitate using ab185050 at 1/1000 dilution.

VeriBlot for IP Detection Reagent (HRP) (ab131366) was used for detection at 1/10000 dilution.

Lane 1: HeLa whole cell lysate 10ug (Input).

Lane 2: ab185050 IP in HeLa whole cell lysate.

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab185050 in HeLa whole cell lysate.

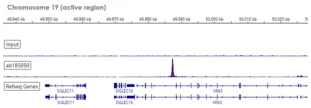
Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 30 seconds.

All lanes:
Immunoprecipitation - Anti-EHMT2/G9A antibody [EPR18894] - ChIP Grade (ab185050)

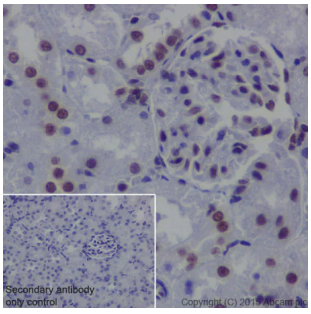
Predicted band size: 132 kDa

Observed band size: 160 kDa, 170 kDa



ChIP-sequencing - Anti-EHMT2/G9A antibody [EPR18894] - ChIP Grade (ab185050)

Chromatin was prepared from HeLa cells. Cells were fixed with 1% formaldehyde for 10 minutes. ChIP was performed with 107 HeLa cells and 8 µg of ab185050 [EPR18894]. ChIP DNA was sequenced on the Illumina NovaSeq 6000 to a depth of 30 million reads.
Additional screenshots of mapped reads can be downloaded here.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-EHMT2/G9A antibody [EPR18894] - ChIP Grade (ab185050)

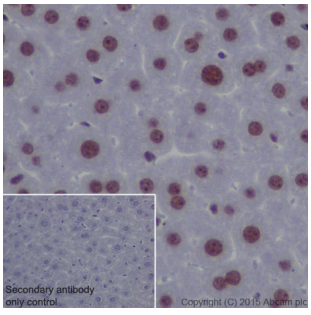
EHMT2/G9A Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-EHMT2/G9A antibody

Immunohistochemical analysis of paraffin-embedded Rat kidney tissue labeling EHMT2/G9A with ab185050 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.
Nucleus staining on rat kidney is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-EHMT2/G9A antibody [EPR18894] - ChIP Grade (ab185050)

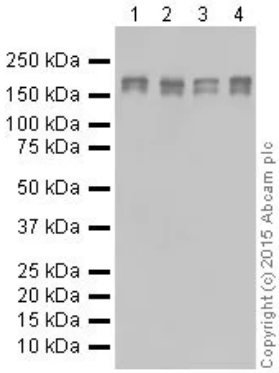
EHMT2/G9A Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-EHMT2/G9A antibody

Immunohistochemical analysis of paraffin-embedded Mouse liver tissue labeling EHMT2/G9A with ab185050 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.
Nucleus staining on hepatocytes of the mouse liver is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Western blot - Anti-EHMT2/G9A antibody [EPR18894] - ChIP Grade (ab185050)

Blocking/Dilution buffer: 5% NFDM/TBST.
The expression profile/ molecular weight observed is consistent with what has been described in the literature (PMID 16702210).

All lanes:
Western blot - Anti-EHMT2/G9A antibody [EPR18894] - ChIP Grade (ab185050) at 1/1000 dilution

Lane 1:
HEK-293 (Human epithelial cells from embryonic kidney) whole cell lysate at 20 µg

Lane 2:
Jurkat (Human T cell leukemia cells from peripheral blood) whole cell lysate at 20 µg

Lane 3:
HepG2 (Human liver hepatocellular carcinoma) whole cell lysate at 20 µg

Lane 4:
NCCIT (Human pluripotent embryonic carcinoma) whole cell lysate at 20 µg

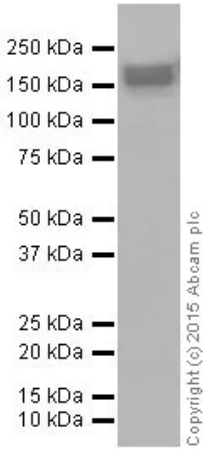
Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 132 kDa

Observed band size: 160 kDa, 170 kDa

Exposure time: 30s



Western blot - Anti-EHMT2/G9A antibody [EPR18894] - ChIP Grade (ab185050)

EHMT2/G9A Western blot staining of Human fetal heart lysate using rabbit Anti-EHMT2/G9A antibody

Blocking/Dilution buffer: 5% NFDM/TBST.
The expression profile/ molecular weight observed is consistent with what has been described in the literature (PMID 16702210).

All lanes:
Western blot - Anti-EHMT2/G9A antibody [EPR18894] - ChIP Grade (ab185050) at 1/1000 dilution

All lanes:
Human fetal heart lysate at 10 µg

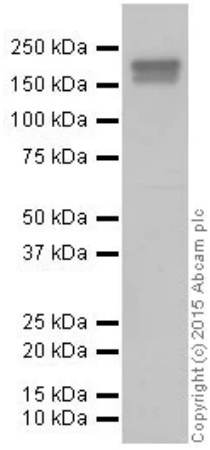
Secondary

All lanes:
Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/10000 dilution

Predicted band size: 132 kDa

Observed band size: 160 kDa, 170 kDa

Exposure time: 3min



Western blot - Anti-EHMT2/G9A antibody [EPR18894] - ChIP Grade (ab185050)

Blocking/Dilution buffer: 5% NFDM/TBST.
The expression profile/ molecular weight observed is consistent with what has been described in the literature (PMID 16702210).

All lanes:
Western blot - Anti-EHMT2/G9A antibody [EPR18894] - ChIP Grade (ab185050) at 1/1000 dilution

All lanes:
Human fetal kidney lysate at 10 µg

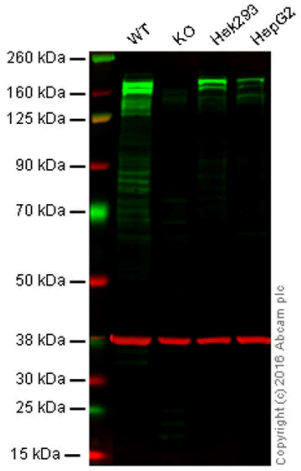
Secondary

All lanes:
Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/10000 dilution

Predicted band size: 132 kDa

Observed band size: 160 kDa, 170 kDa

Exposure time: 8s



Western blot - Anti-EHMT2/G9A antibody [EPR18894] - ChIP Grade (ab185050)

Lanes 1 - 4: Merged signal (red and green). Green - ab185050 observed at 160 kDa. Red - loading control, ab8245, observed at 37 kDa.
ab185050 was shown to recognize EHMT2/G9A when EHMT2/G9A knockout samples were used, along with additional cross-reactive bands. Wild-type and EHMT2/G9A knockout samples were subjected to SDS-PAGE. ab185050 and ab8245 (loading control to GAPDH) were diluted 1/1000 and 1/10 000 respectively and incubated overnight at 4°C. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (ab216776) secondary antibodies at 1/10 000 dilution for 1 h at room temperature before imaging.

All lanes:
Western blot - Anti-EHMT2/G9A antibody [EPR18894] - ChIP Grade (ab185050) at 1/1000 dilution

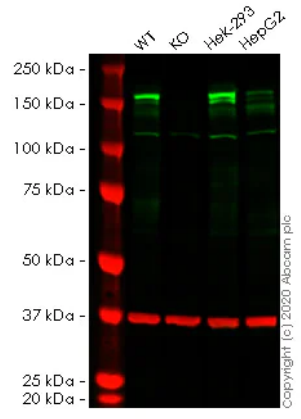
Lane 1:
Wild-type HAP1 cell lysate at 20 µg

Lane 2:
EHMT2/G9A knockout HAP1 cell lysate at 20 µg

Lane 3:
HEK293 cell lysate at 20 µg

Lane 4:
HepG2 cell lysate at 20 µg

Predicted band size: 132 kDa



Western blot - Anti-EHMT2/G9A antibody [EPR18894] - ChIP Grade (ab185050)

EHMT2/G9A Western blot staining using rabbit Anti-EHMT2/G9A antibody

Lanes 1-4: Merged signal (red and green). Green - ab185050 observed at 160 kDa. Red - loading control ab8245 observed at 37 kDa.
ab185050 Anti-EHMT2/G9A antibody [EPR18894] was shown to specifically react with EHMT2/G9A in wild-type HeLa cells. Loss of signal was observed when knockout cell line ab265149 (knockout cell lysate ab257080) was used. Wild-type and EHMT2/G9A knockout samples were subjected to SDS-PAGE. ab185050 and Anti-GAPDH antibody [6C5] - Loading Control (ab8245) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (ab216776) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.

All lanes:
Western blot - Anti-EHMT2/G9A antibody [EPR18894] - ChIP Grade (ab185050) at 1/1000 dilution

Lane 1:
Wild-type HeLa cell lysate at 20 µg

Lane 2:
Western blot - Human EHMT2 (G9A) knockout HeLa cell lysate (ab257080) at 20 µg

Lane 3:
HEK-293 cell lysate at 20 µg

Lane 4:

HepG2 cell lysate at 20 µg

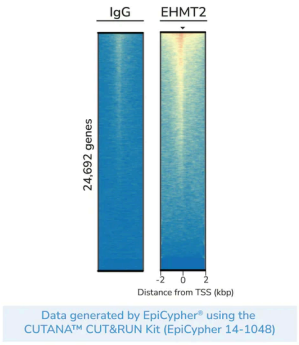
Secondary

All lanes:
Western blot - Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) at 1/20000 dilution

Performed under reducing conditions.

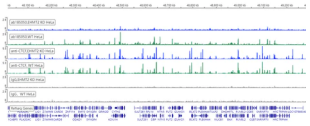
Predicted band size: 132 kDa

Observed band size: 160 kDa



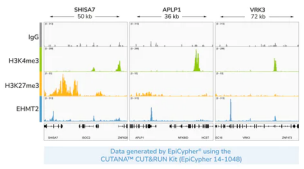
ChIC/CUT&RUN sequencing - Anti-EHMT2/G9A antibody [EPR18894] - ChIP Grade (ab185050)

CUT&RUN profiling with EHMT2 antibody demonstrates robust genome-wide enrichment in cells. Heatmaps of genome-wide signal flanking annotated transcription start sites (TSSs, +/- 2 kbp) display CUT&RUN data generated using the CUTANA™ CUT&RUN Kit (EpiCypher 14-1048) with EHMT2 antibody (Abcam ab185050, 0.5 µg). 500,000 HeLa cells were used per reaction. IgG antibody was included as a negative control to assess non-specific background. Libraries were prepared using the CUTANA™ CUT&RUN Library Prep Kit (EpiCypher 14-1001). Sequencing was performed with paired-end 50 bp reads, and data were processed on CUTANA™ Cloud (cloud.epicypher.com) by alignment to the hg38 genome. Heatmaps were generated using ChAsE (Younesy et al., *Bioinformatics* 2016; PMID 27378294). Row-linked data are ranked by intensity relative to EHMT2, with red indicating high localized enrichment and blue denoting background.



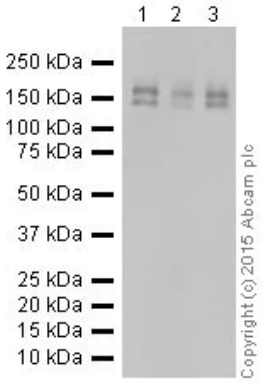
ChIC/CUT&RUN sequencing - Anti-EHMT2/G9A antibody [EPR18894] - ChIP Grade (ab185050)

ChIC/CUT&RUN was performed using a pAG-MNAse at a final concentration of 700 ng/mL. 2.5X10^5 of Human wild-type HeLa cell line (ab255928) or EHMT2 (G9A) knockout HeLa cell line (ab265149) were used along with 5µg of ab185050 [EPR18894]. Assay Quality Control was conducted using 5µg Anti-CTCF (ab188408) on the same cell lines. The resulting DNA was sequenced on the Illumina NovaSeq 6000 to a depth of 10 million reads. The negative IgG control ab172730 is also shown. Additional screenshots of mapped reads can be found in the Protocol booklet in the Product Protocol section. The University of Geneva owns patents relevant to ChIC (Chromatin Immuno-Cleavage) methods.



ChIC/CUT&RUN sequencing - Anti-EHMT2/G9A antibody [EPR18894] - ChIP Grade (ab185050)

CUT&RUN profiling with EHMT2 antibody reveals the expected genomic enrichment pattern in cells. Representative genome browser tracks show CUT&RUN data generated using the CUTANA™ CUT&RUN Kit (EpiCypher 14-1048) with EHMT2 antibody (Abcam ab185050, 0.5 µg). 500,000 HeLa cells were used per reaction. IgG, H3K4me3, and H3K27me3 antibodies were included as controls to assess non-specific background, active promoters, and repressed chromatin, respectively. Libraries were prepared using the CUTANA™ CUT&RUN Library Prep Kit (EpiCypher 14-1001). Sequencing was performed with paired-end 50 bp reads, and data were processed on CUTANA™ Cloud (cloud.epicypher.com) by alignment to the hg38 genome. Images were generated using Integrative Genomics Viewer (IGV, Broad Institute).



Western blot - Anti-EHMT2/G9A antibody [EPR18894] - ChIP Grade (ab185050)

EHMT2/G9A Western blot staining using rabbit Anti-EHMT2/G9A antibody

Blocking/Dilution buffer: 5% NFDM/TBST.
The expression profile/ molecular weight observed is consistent with what has been described in the literature (PMID 16702210).

All lanes:
Western blot - Anti-EHMT2/G9A antibody [EPR18894] - ChIP Grade (ab185050) at 1/1000 dilution

Lane 1:
F9 (Mouse embyro testicular cancer cell line) whole cell lysate at 10 µg

Lane 2:
Neuro-2a (Mouse neuroblastoma cells) whole cell lysate at 10 µg

Lane 3:
LLC1 (Mouse lung carcinoma cell line) whole cell lysate at 10 µg

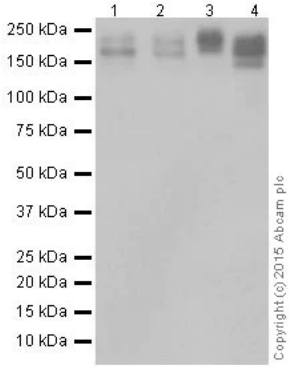
Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 132 kDa

Observed band size: 160 kDa, 170 kDa

Exposure time: 5s



Western blot - Anti-EHMT2/G9A antibody [EPR18894] - ChIP Grade (ab185050)

EHMT2/G9A Western blot staining using rabbit Anti-EHMT2/G9A antibody

Blocking/Dilution buffer: 5% NFDM/TBST.
The expression profile/ molecular weight observed is consistent with what has been described in the literature (PMID 16702210).

All lanes:
Western blot - Anti-EHMT2/G9A antibody [EPR18894] - ChIP Grade (ab185050) at 1/1000 dilution

Lane 1:
C6 (Rat glial tumor cells) whole cell lysate at 10 µg

Lane 2:
RAW 264.7 (Mouse macrophage cells transformed with Abelson murine leukemia virus) whole cell lysate at 10 µg

Lane 3:
PC-12 (Rat adrenal gland pheochromocytoma) whole cell lysate at 10 µg

Lane 4:
NIH/3T3 (Mouse embyro fibroblast cells) whole cell lysate at 10 µg

Secondary

All lanes:

Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 132 kDa

Observed band size: 160 kDa, 170 kDa

Exposure time: 8s

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.