

## Product datasheet

# Anti-EHMT2/G9A antibody [EPR4019(2)] - ChIP Grade - BSA and Azide free ab248517

**KO VALIDATED** Recombinant RabMAB

2 Images

### Overview

<b>Product name</b>	Anti-EHMT2/G9A antibody [EPR4019(2)] - ChIP Grade - BSA and Azide free
<b>Description</b>	Rabbit monoclonal [EPR4019(2)] to EHMT2/G9A - ChIP Grade – BSA and Azide free
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> ChIP-sequencing, IHC-P, WB <b>Unsuitable for:</b> Flow Cyt, ICC/IF or IP
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<b>General notes</b>	<p>ab248517 is the carrier-free version of <a href="#">ab133482</a>.</p> <p>Our <b>carrier-free</b> antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.</p> <p>This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.</p> <p>Use our <b>conjugation kits</b> for antibody conjugates that are ready-to-use in as little as 20 minutes with &lt;1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.</p> <p>This product is compatible with the Maxpar<sup>®</sup> Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar<sup>®</sup> is a trademark of Fluidigm Canada Inc.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"><li>- High batch-to-batch consistency and reproducibility</li><li>- Improved sensitivity and specificity</li><li>- Long-term security of supply</li><li>- Animal-free production</li></ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAB<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAB<sup>®</sup> patents</a>.</p> <p>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with</p>

these species. Please contact us for more information.

## Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C. Do Not Freeze.
<b>Storage buffer</b>	pH: 7.2 Constituent: PBS
<b>Carrier free</b>	Yes
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR4019(2)
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab248517 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
<b>ChIP-sequencing</b>		Use at an assay dependent concentration.
<b>IHC-P</b>		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
<b>WB</b>		Use at an assay dependent concentration. Predicted molecular weight: 132 kDa.

**Application notes** Is unsuitable for Flow Cyt, ICC/IF or IP.

## Target

**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. 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. Also weakly methylates 'Lys-27' of histone H3 (H3K27me). 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. May also methylate histone H1. In addition to the histone methyltransferase activity, also methylates non-histone proteins: mediates dimethylation of 'Lys-373' of p53/TP53. Also methylates CDYL, WIZ, ACIN1, DNMT1, HDAC1, ERCC6, KLF12 and itself.

**Tissue specificity** Expressed in all tissues examined, with high levels in fetal liver, thymus, lymph node, spleen and

peripheral blood leukocytes and lower level in bone marrow.

### Sequence similarities

Belongs to the class V-like SAM-binding methyltransferase superfamily. Histone-lysine methyltransferase family. Suvar3-9 subfamily.

Contains 7 ANK repeats.

Contains 1 post-SET domain.

Contains 1 pre-SET domain.

Contains 1 SET domain.

### Domain

The SET domain mediates interaction with WIZ.

The ANK repeats bind H3K9me1 and H3K9me2.

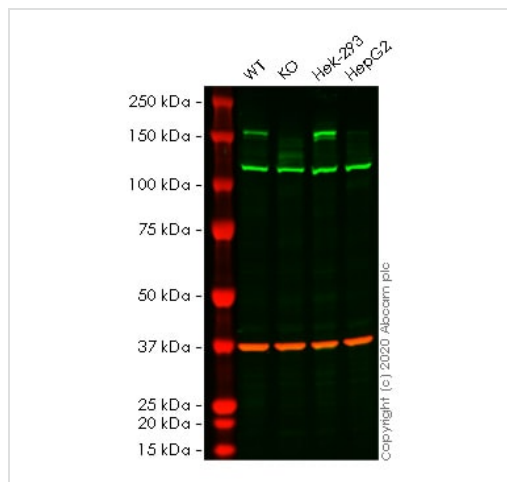
### Post-translational modifications

Methylated at Lys-185; automethylated.

### Cellular localization

Nucleus. Chromosome. Associates with euchromatic regions. Does not associate with heterochromatin.

## Images



Western blot - Anti-EHMT2/G9A antibody [EPR4019(2)] - ChIP Grade - BSA and Azide free (ab248517)

**All lanes :** Anti-EHMT2/G9A antibody [EPR4019(2)] - ChIP Grade ([ab133482](#)) at 1/1000 dilution

**Lane 1 :** Wild-type HeLa cell lysate

**Lane 2 :** EHMT2/G9A knockout HeLa cell lysate

**Lane 3 :** HEK-293 cell lysate

**Lane 4 :** HepG2 cell lysate

Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

**Predicted band size:** 132 kDa


This data was developed using the same antibody clone in a different buffer formulation ([ab133482](#)).

**Lanes 1-4:** Merged signal (red and green). Green - [ab133482](#) observed at 160 kDa. Red - loading control [ab8245](#) observed at 37 kDa.

[ab133482](#) Anti-EHMT2/G9A antibody [EPR4019(2)] 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. [ab133482](#) 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.

Why choose a recombinant antibody?



- Research with confidence**  
Consistent and reproducible results
- Long-term and scalable supply**  
Recombinant technology
- Success from the first experiment**  
Confirmed specificity
- Ethical standards compliant**  
Animal-free production

Anti-EHMT2/G9A antibody [EPR4019(2)] - ChIP  
Grade - BSA and Azide free (ab248517)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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