abcam

Product datasheet

Anti-PRMT5 antibody [EPR5772] - BSA and Azide free ab215364

Recombinant RabMAb

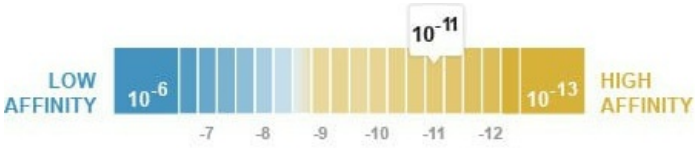
2 References 8 Images

Overview

Product name	Anti-PRMT5 antibody [EPR5772] - BSA and Azide free
Description	Rabbit monoclonal [EPR5772] to PRMT5 - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), WB, IHC-P, ICC/IF, IP
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HEK-293, HepG2, HeLa, and NIH/3T3 cell lysates; mouse and rat brain tissue lysate. ICC/IF: HepG2 and HeLa cells. IHC-P: Human infiltrating duct carcinoma of breast tissue, mouse liver tissue. Flow Cyt (intra): HeLa cells. IP: Mouse brain cell.
General notes	ab215364 is the carrier-free version of **ab109451**. Our **carrier-free** 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. 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. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc. 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 production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Dissociation constant (K_D)	$K_D = 6.70 \times 10^{-11}$ M



Learn more about K_D

Storage buffer	pH: 7.20 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR5772
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab215364 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

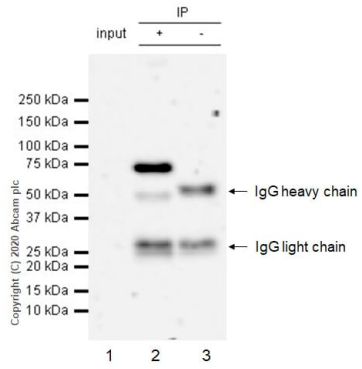
Application	Abreviews	Notes
Flow Cyt (Intra)		Use at an assay dependent concentration. **ab199376** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB		Use at an assay dependent concentration. Detects a band of approximately 72 kDa (predicted molecular weight: 73 kDa).
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See **IHC antigen retrieval protocols**.
ICC/IF		Use at an assay dependent concentration.
IP		Use at an assay dependent concentration.

Target

Function Arginine methyltransferase that can both catalyze the formation of omega-N monomethylarginine (MMA) and symmetrical dimethylarginine (sDMA), with a preference for the formation of MMA.

	Specifically mediates the symmetrical dimethylation of arginine residues in the small nuclear ribonucleoproteins Sm D1 (SNRPD1) and Sm D3 (SNRPD3); such methylation being required for the assembly and biogenesis of snRNP core particles. Methylates SUPT5H. Mono- and dimethylates arginine residues of myelin basic protein (MBP) in vitro. Plays a role in the assembly of snRNP core particles. May play a role in cytokine-activated transduction pathways. Negatively regulates cyclin E1 promoter activity and cellular proliferation. May regulate the SUPT5H transcriptional elongation properties. May be part of a pathway that is connected to a chloride current, possibly through cytoskeletal rearrangement. Methylates histone H2A and H4 'Arg-3' during germ cell development. Methylates histone H3 'Arg-8', which may repress transcription. Methylates the Piwi proteins (PIWIL1, PIWIL2 and PIWIL4), methylation of Piwi proteins being required for the interaction with Tudor domain-containing proteins and subsequent localization to the meiotic nuage. Methylates RPS10.
Tissue specificity	Ubiquitous.
Sequence similarities	Belongs to the protein arginine N-methyltransferase family.
Post-translational modifications	Disulfide bonds and non-covalent association mediate homooligomers formation.
Cellular localization	Cytoplasm. Nucleus.

Images



Immunoprecipitation - Anti-PRMT5 antibody [EPR5772] - BSA and Azide free (ab215364)

This data was developed using **ab109451**, the same antibody clone in a different buffer formulation.

PRMT5 was immunoprecipitated from 0.35 mg Mouse brain tissue lysate 10 ug with **ab109451** at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using **ab109451** at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP)(**ab131366**) was used at 1/5000 dilution.

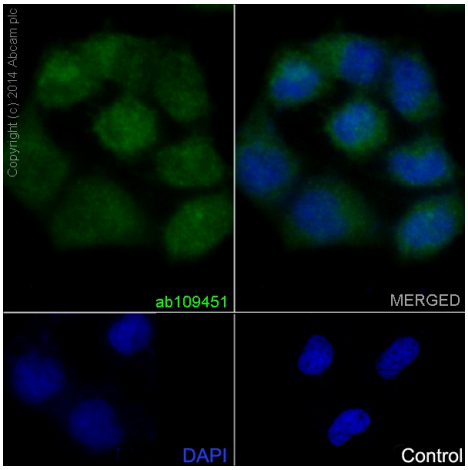
Lane 1: Mouse brain tissue lysate 10 ug

Lane 2: **ab109451** IP in Mouse brain tissue lysate

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of **ab109451** in mouse brain tissue lysate

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

Exposure time: 100 seconds

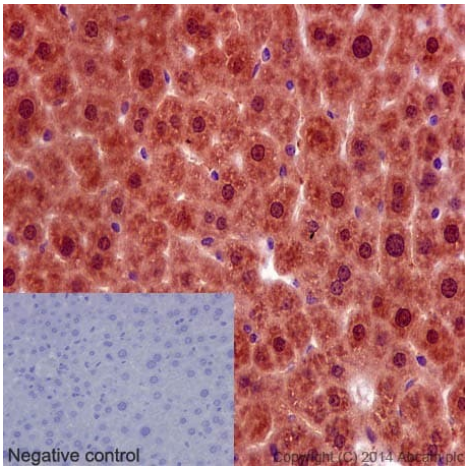


Immunocytochemistry/ Immunofluorescence - Anti-PRMT5 antibody [EPR5772] - BSA and Azide free (ab215364)

Immunocytochemistry/Immunofluorescence analysis of HeLa cells labelling PRMT5 (green) with purified **ab109451** at 1/50. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. **ab150077**, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/200) was used as the secondary antibody. DAPI (blue) was used as the nuclear counterstain.

Control: primary antibody (1/50) and secondary antibody Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/400).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109451**).

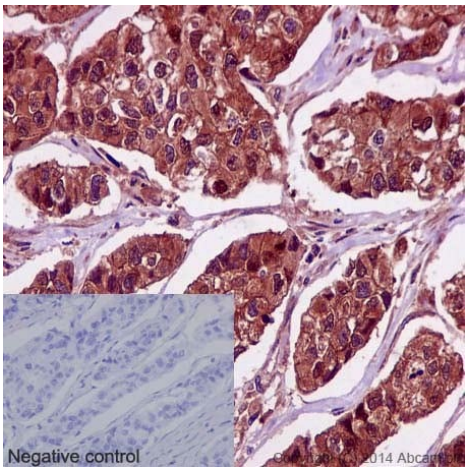


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PRMT5 antibody [EPR5772] - BSA and Azide free (ab215364)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse liver tissue sections labelling PRMT5 with purified **ab109451** at 1/100. A prediluted HRP-polymer conjugated anti-rabbit IgG was used as the secondary antibody. Negative control using PBS instead of primary antibody. Counterstained with Hematoxylin.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109451**).

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

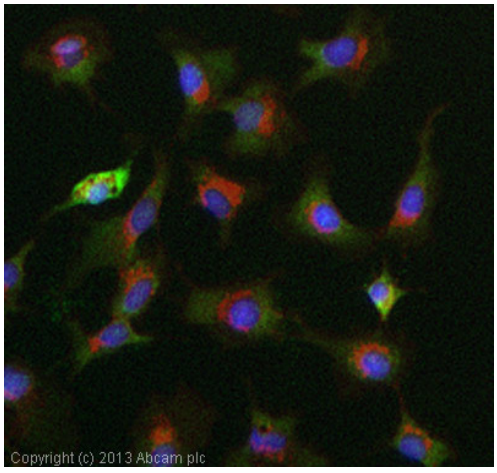


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PRMT5 antibody [EPR5772] - BSA and Azide free (ab215364)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human infiltrating duct carcinoma of breast tissue sections labelling PRMT5 with purified **ab109451** at 1/100. A prediluted HRP-polymer conjugated anti-rabbit IgG was used as the secondary antibody. Negative control using PBS instead of primary antibody. Counterstained with Hematoxylin.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109451**).

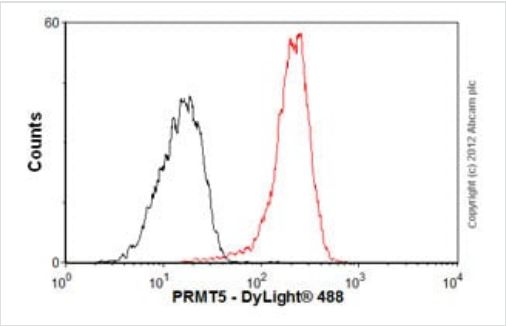
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-PRMT5 antibody [EPR5772] - BSA and Azide free (ab215364)

ICC/IF image of **ab109451** (unpurified) stained HepG2 cells. The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (**ab109451**, 1/100 dilution) overnight at +4°C. The secondary antibody (green) was **ab96899**, DyLight® 488 goat anti-rabbit IgG (H+L) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

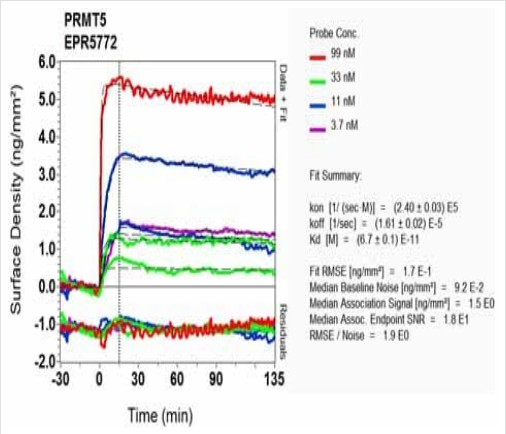
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109451**).



Flow Cytometry (Intracellular) - Anti-PRMT5 antibody [EPR5772] - BSA and Azide free (ab215364)

Overlay histogram showing HeLa cells stained with **ab109451** (unpurified, red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (**ab109451**, 1/100 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rabbit IgG (H+L) (**ab96899**) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monclonal) (1µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109451**).

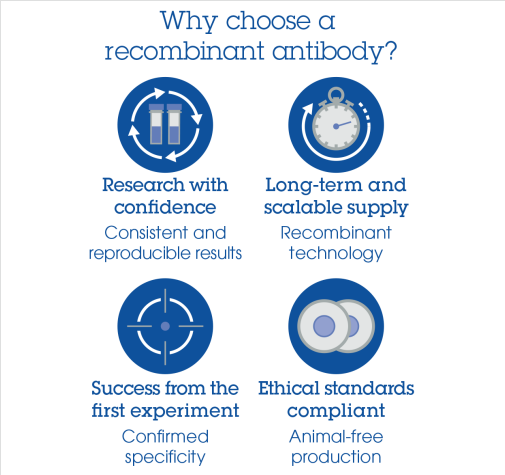


OI-RD Scanning - Anti-PRMT5 antibody [EPR5772] - BSA and Azide free (ab215364)

Equilibrium disassociation constant (K_D)

Click here to learn more about K_D

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109451**).



Anti-PRMT5 antibody [EPR5772] - BSA and Azide free (ab215364)

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