abcam

Product datasheet

Anti-PRMT1 antibody ab73246

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概述

产品名称	Anti-PRMT1抗体
描述	兔多克隆抗体to PRMT1
宿主	Rabbit
经测试应用	**适用于:** ICC, IHC-P, WB, IP
种属反应性	**与反应:** Mouse, Human **预测可用于:** Rat, Cow, Dog, Non human primates
免疫原	Synthetic peptide conjugated to KLH derived from within residues 1 - 100 of Human PRMT1.参阅Abcam的专有抗源政策(Peptide available as **ab73687**.)
阳性对照	ICC: HeLa cells. IP: HepG2 whole cell extract. IHC-P: Human hippocampus tissue. WB: Caco-2 and SW480 whole cell lysate. Mouse tissue lysate.
常规说明	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
存储溶液	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.
纯度	Immunogen affinity purified

克隆	**多克隆**
同种型	IgG

应用

The Abpromise guarantee **Abpromise™承诺保证使用ab73246于以下的经测试应用**

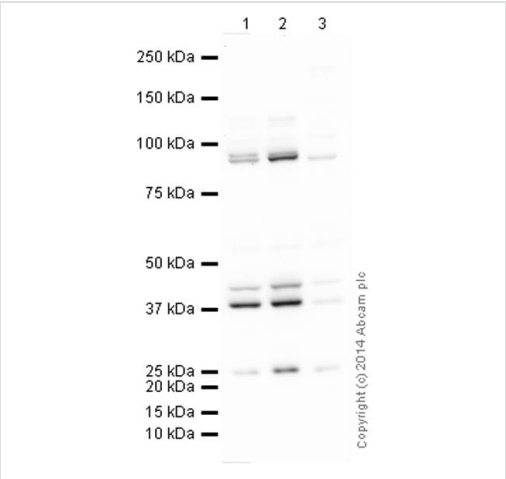
"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
ICC		Use a concentration of 1 - 5 µg/ml.
IHC-P		Use a concentration of 5 µg/ml.
WB	★★★★☆ (3)	Use a concentration of 1 µg/ml. Detects a band of approximately 42, 39 kDa (predicted molecular weight: 42 kDa).
IP		Use at an assay dependent concentration.

靶标

功能	Arginine methyltransferase that methylates (mono and asymmetric dimethylation) the guanidino nitrogens of arginyl residues present in proteins such as ESR1, histone H2, H3 and H4, PIAS1, HNRNPA1, HNRNPD, NFATC2IP, SUPT5H, TAF15 and EWS. Constitutes the main enzyme that mediates monomethylation and asymmetric dimethylation of histone H4 'Arg-4' (H4R3me1 and H4R3me2a, respectively), a specific tag for epigenetic transcriptional activation. Together with dimethylated PIAS1, represses STAT1 transcriptional activity, in the late phase of interferon gamma (IFN-gamma) signaling. May be involved in the regulation of TAF15 transcriptional activity, act as an activator of estrogen receptor (ER)-mediated transactivation, play a key role in neurite outgrowth and act as a negative regulator of megakaryocytic differentiation, by modulating p38 MAPK pathway.
组织特异性	Widely expressed.
序列相似性	Belongs to the protein arginine N-methyltransferase family.
细胞定位	Nucleus. Cytoplasm > cytosol.

图片



Western blot - Anti-PRMT1 antibody (ab73246)

All lanes : Anti-PRMT1 antibody (ab73246) at 1 µg/ml

Lane 1 : Caco-2 (Human colonic carcinoma cell line) Whole Cell Lysate (**ab76828**)
Lane 2 : SW480 (Human colon adenocarcinoma cell line) Whole Cell Lysate (**ab76999**)
Lane 3 : Thymus (Mouse) Tissue Lysate (**ab76823**)

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/10000 dilution

Developed using the ECL technique.

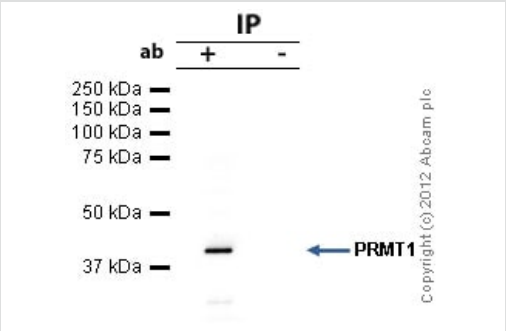
Performed under reducing conditions.

Predicted band size: 42 kDa
Observed band size: 43 kDa
Additional bands at: 25 kDa (possible non-specific binding), 38 kDa (possible isoform), 90 kDa (possible non-specific binding)

Exposure time: 2 minutes

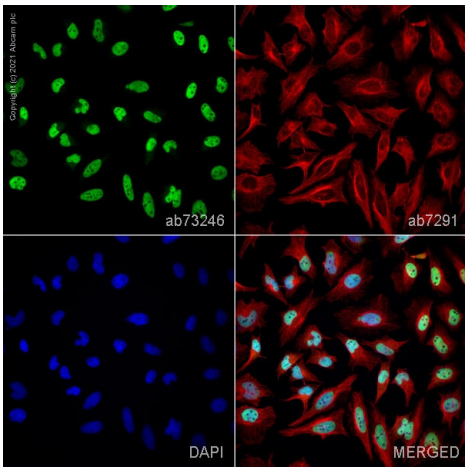
This blot was produced using a 4-12% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 1% milk before being incubated with ab73246 overnight at 4°C. Antibody binding was detected using an anti-rabbit antibody conjugated to HRP, and visualised using ECL development solution.

This antibody was raised against an immunogen that is predicted to recognize isoforms 1,2,3 and 4 of human PRMT1. The predicted molecular weights of isoforms 1,2,3 and 4 are 41kDa, 39kDa, 39kDa and 40kDa respectively.



Immunoprecipitation - Anti-PRMT1 antibody (ab73246)

PRMT1 was immunoprecipitated using 0.5mg HepG2 whole cell extract, 5µg of Rabbit polyclonal to PRMT1 and 50µl of protein G magnetic beads (+). No antibody was added to the control (-).
The antibody was incubated under agitation with Protein G beads for 10min, HepG2 whole cell extract lysate diluted in RIPA buffer was added to each sample and incubated for a further 10min under agitation.
Proteins were eluted by addition of 40µl SDS loading buffer and incubated for 10min at 70^{o}C; 10µl of each sample was separated on a SDS PAGE gel, transferred to a nitrocellulose membrane, blocked with 5% BSA and probed with ab73246.
Secondary: Mouse monoclonal [SB62a] Secondary Antibody to Rabbit IgG light chain (HRP) (**ab99697**).
Band: 42kDa: PRMT1; non specific - 30kDa: We are unsure as to the identity of this extra band.

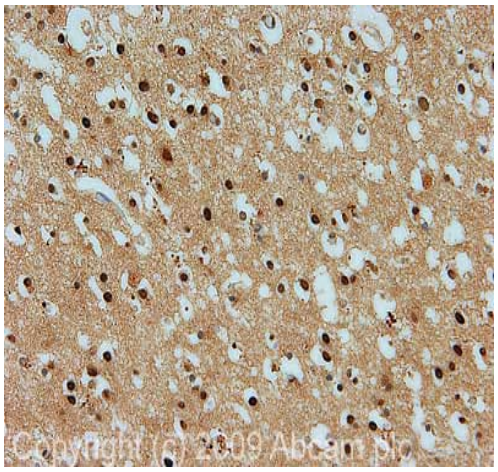


Immunocytochemistry - Anti-PRMT1 antibody (ab73246)

ab73246 staining PRMT1 in HeLa cells. The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.1% PBS-Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at 4°C with ab73246 at 1 µg/ml and **ab7291**, Mouse monoclonal [DM1A] to alpha Tubulin - Loading Control. Cells were then incubated with **ab150081**, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 488), pre-adsorbed at 1/1000 dilution (shown in green) and **ab150120**, Goat polyclonal Secondary Antibody to Mouse IgG - H&L (Alexa Fluor® 594), pre-adsorbed at 1/1000 dilution (shown in pseudocolour red). Nuclear DNA was labelled with DAPI (shown in blue).

Also suitable in cells fixed with 100% methanol (5 min).

Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a maximum intensity projection of confocal sections is shown.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PRMT1 antibody (ab73246)

IHC image of PRMT1 staining in Human Hippocampus FFPE section, performed on a BondTM system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab73246, 5µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX

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