

### Anti-HP1 gamma/CBX3 antibody [EPR19802] ab217999

敲除验证
重组
RabMAb

4 References 14 图像

#### 概述

<b>产品名称</b>	Anti-HP1 gamma/CBX3抗体[EPR19802]
<b>描述</b>	兔单克隆抗体[EPR19802] to HP1 gamma/CBX3
<b>宿主</b>	Rabbit
<b>经测试应用</b>	<b>适用于:</b> WB, IHC-P, ICC/IF, IP, Flow Cyt (Intra)
<b>种属反应性</b>	<b>与反应:</b> Mouse, Rat, Human
<b>免疫原</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<b>阳性对照</b>	WB: Human brain lysate; HeLa, HepG2, PC-3, C2C12, 4T1, A549, LNCaP, C6 and NIH/3T3 whole cell lysates; Mouse and rat brain lysates. IHC-P: Human testis and bladder cancer tissues; Mouse liver tissue; Rat kidney tissue. ICC/IF: HeLa and NIH/3T3 cells. Flow Cyt (intra): HeLa cells. IP: HeLa whole cell lysate.
<b>常规说明</b>	<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>

#### 性能

<b>形式</b>	Liquid
<b>存放说明</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>存储溶液</b>	<p>pH: 7.2</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 59% PBS, 40% Glycerol, 0.05% BSA</p>
<b>纯度</b>	Protein A purified
<b>克隆</b>	单克隆
<b>克隆编号</b>	EPR19802

同种型

IgG

应用

The Abpromise guarantee

**Abpromise™**承诺保证使用ab217999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
WB		1/2000. Detects a band of approximately 21 kDa (predicted molecular weight: 21 kDa).
IHC-P		1/2000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
ICC/IF		1/1000.
IP		1/30.
Flow Cyt (Intra)		1/400. <b>ab172730</b> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

靶标

功能

Seems to be involved in transcriptional silencing in heterochromatin-like complexes. Recognizes and binds histone H3 tails methylated at 'Lys-9', leading to epigenetic repression. May contribute to the association of the heterochromatin with the inner nuclear membrane through its interaction with lamin B receptor (LBR). Involved in the formation of functional kinetochore through interaction with MIS12 complex proteins.

序列相似性

Contains 2 chromo domains.

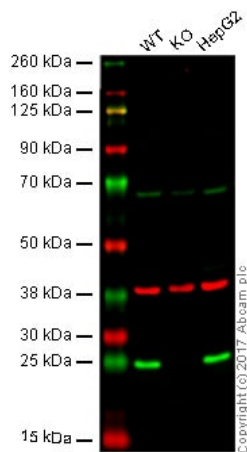
翻译后修饰

Phosphorylated by PIM1. Phosphorylated during interphase and possibly hyper-phosphorylated during mitosis.

细胞定位

Nucleus. Associates with euchromatin and is largely excluded from constitutive heterochromatin. May be associated with microtubules and mitotic poles during mitosis.

图片



Western blot - Anti-HP1 gamma/CBX3 antibody [EPR19802] (ab217999)

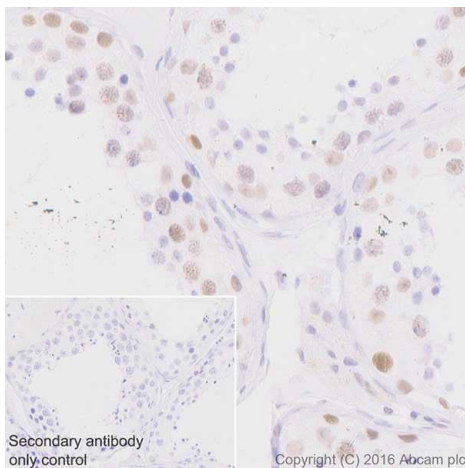
**Lane 1:** Wild type HAP1 whole cell lysate (20 µg)

**Lane 2:** CBX3 knockout HAP1 whole cell lysate (20 µg)

**Lane 3:** HepG2 whole cell lysate (20 µg)

**Lanes 1 - 3:** Merged signal (red and green). Green - ab217999 observed at 25 kDa. Red - loading control, **ab9484**, observed at 37 kDa.

ab217999 was shown to recognize CBX3 when CBX3 knockout samples were used, along with additional cross-reactive bands. Wild-type and CBX3 knockout samples were subjected to SDS-PAGE. Ab217999 and **ab9484** (Mouse anti GAPDH loading control) were incubated overnight at 4°C at 2000 dilution and 1/10000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed **ab216773** and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed **ab216776** secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.

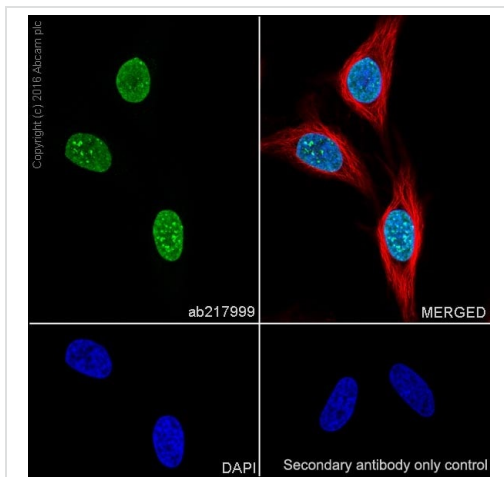


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HP1 gamma/CBX3 antibody [EPR19802] (ab217999)

Immunohistochemical analysis of paraffin-embedded human testis tissue labeling HP1 gamma/CBX3 with ab217999 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution. Nuclear staining on human testis is observed [PMID: 19786570]. 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.

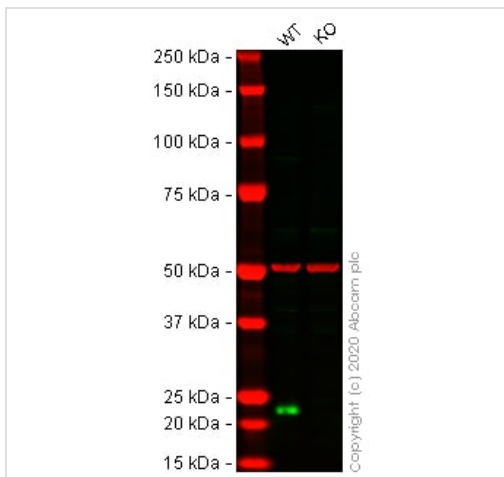


Immunocytochemistry/ Immunofluorescence - Anti-HP1 gamma/CBX3 antibody [EPR19802] (ab217999)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (Human epithelial cell line from cervix adenocarcinoma) cells labeling HP1 gamma/CBX3 with ab217999 at 1/1000 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor<sup>®</sup> 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 **ab195889** (Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor<sup>®</sup> 594)) at 1/200 dilution (red).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat anti-rabbit IgG (Alexa Fluor<sup>®</sup> 488) (**ab150077**) at 1/1000 dilution.



Western blot - Anti-HP1 gamma/CBX3 antibody [EPR19802] (ab217999)

**All lanes** : Anti-HP1 gamma/CBX3 antibody [EPR19802] (ab217999) at 1/2000 dilution

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

**Lane 2** : CBX3 knockout HeLa cell lysate

Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

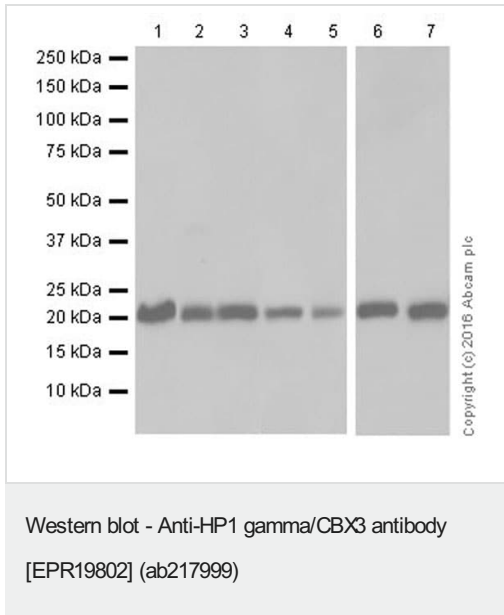
**Predicted band size:** 21 kDa

**Observed band size:** 25 kDa

**Lanes 1- 2:** Merged signal (red and green). Green - ab217999 observed at 25 kDa. Red - Anti-alpha Tubulin antibody [DM1A] - Loading Control (**ab7291**) observed at 50 kDa.

ab217999 was shown to react with HP1 gamma/CBX3 in wild-type HeLa cells in western blot. Loss of signal was observed when knockout cell line **ab261744** (knockout cell lysate **ab257110**) was used. Wild-type HeLa and CBX3 knockout HeLa cell lysates were subjected to SDS-PAGE. Membrane was blocked for 1 hour at room temperature in 0.1% TBST with 3% non-fat dried milk. ab217999 and Anti-alpha Tubulin antibody [DM1A] - Loading Control (**ab7291**) overnight at 4°C at a 1 in 2000 dilution and a 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 :** Anti-HP1 gamma/CBX3 antibody [EPR19802] (ab217999) at 1/2000 dilution

**Lane 1 :** HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate

**Lane 2 :** HepG2 (Human liver hepatocellular carcinoma cell line) whole cell lysate

**Lane 3 :** PC-3 (Human prostate adenocarcinoma cell line) whole cell lysate

**Lane 4 :** C2C12 (Mouse myoblast cell line) whole cell lysate

**Lane 5 :** 4T1 (Mouse mammary gland carcinoma cell line) whole cell lysate

**Lane 6 :** A549 (Human lung carcinoma cell line) whole cell lysate

**Lane 7 :** LNCaP (Human prostate cancer cell line) whole cell lysate

Lysates/proteins at 20 µg per lane.

### Secondary

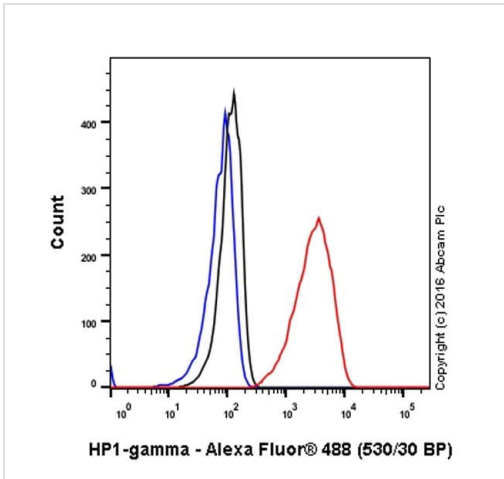
**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

**Predicted band size:** 21 kDa

**Observed band size:** 21 kDa

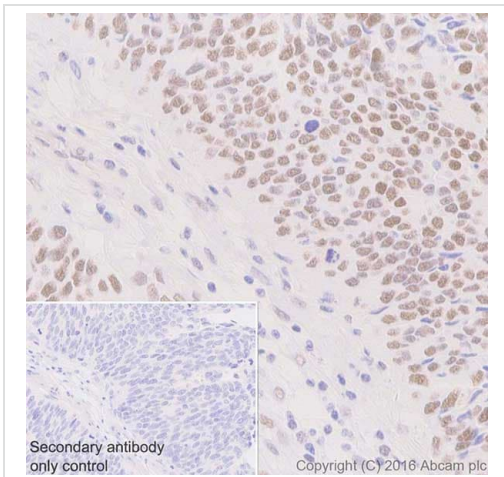
Blocking/Dilution buffer: 5% NFDm/TBST.

Exposure time: Lane 1,2,3,4 and 5: 1 second; Lane 6 and 7: 3 seconds.



Flow Cytometry (Intracellular) - Anti-HP1 gamma/CBX3 antibody [EPR19802] (ab217999)

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed HeLa (Human epithelial cell line from cervix adenocarcinoma) cells labeling HP1 gamma/CBX3 with ab217999 at 1/400 dilution (red) compared with a rabbit monoclonal IgG isotype control (**ab172730**; black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody; blue). Goat anti rabbit IgG (Alexa Fluor<sup>®</sup> 488) at 1/2000 dilution was used as the secondary antibody.

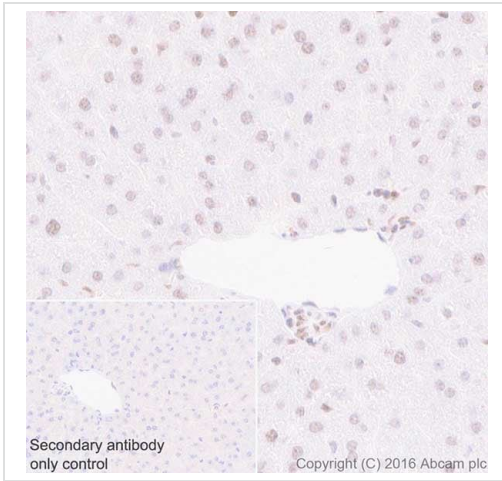


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HP1 gamma/CBX3 antibody [EPR19802] (ab217999)

Immunohistochemical analysis of paraffin-embedded human bladder cancer tissue labeling HP1 gamma/CBX3 with ab217999 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution. Nuclear staining on tumor cells of human bladder cancer 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.

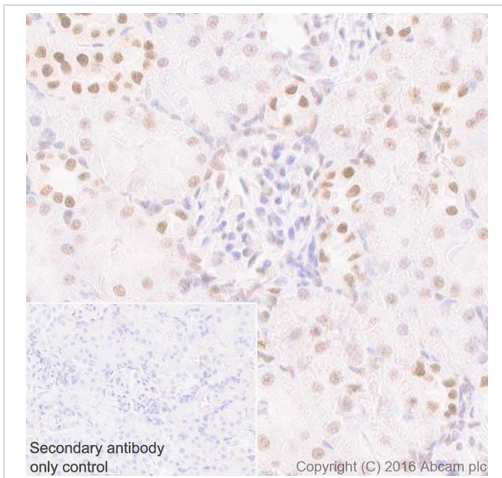


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HP1 gamma/CBX3 antibody [EPR19802] (ab217999)

Immunohistochemical analysis of paraffin-embedded mouse liver tissue labeling HP1 gamma/CBX3 with ab217999 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution. Nuclear staining on hepatocytes of 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.

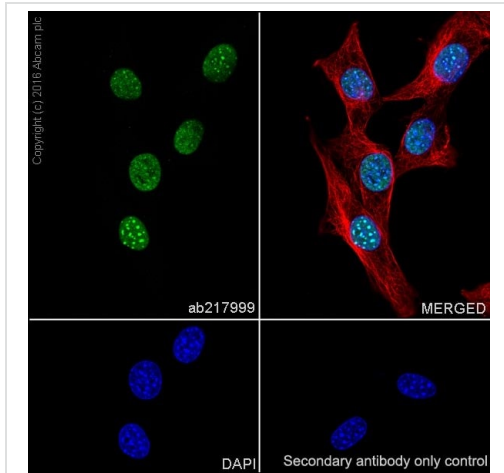


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HP1 gamma/CBX3 antibody [EPR19802] (ab217999)

Immunohistochemical analysis of paraffin-embedded rat kidney tissue labeling HP1 gamma/CBX3 with ab217999 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution. Nuclear 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.

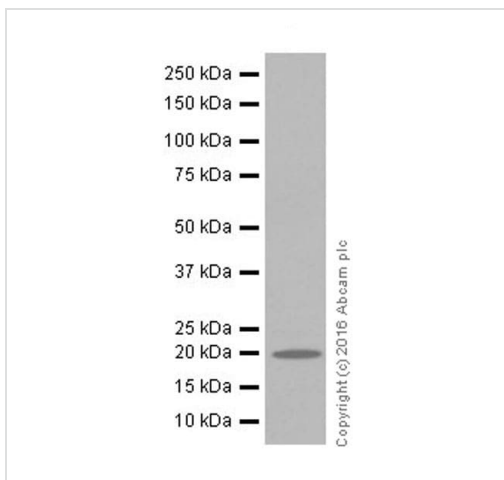


Immunocytochemistry/ Immunofluorescence - Anti-HP1 gamma/CBX3 antibody [EPR19802] (ab217999)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized NIH/3T3 (Mouse embryonic fibroblast cell line) cells labeling HP1 gamma/CBX3 with ab217999 at 1/1000 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor<sup>®</sup> 488) (**ab150077**) secondary antibody at 1/1000 dilution (green). Confocal image showing nuclear staining on NIH/3T3 cell line.

The nuclear counterstain is DAPI (blue). Tubulin is detected with **ab195889** (Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor<sup>®</sup> 594)) at 1/200 dilution (red).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat anti-rabbit IgG (Alexa Fluor<sup>®</sup> 488) (**ab150077**) at 1/1000 dilution.



Western blot - Anti-HP1 gamma/CBX3 antibody [EPR19802] (ab217999)

Anti-HP1 gamma/CBX3 antibody [EPR19802] (ab217999) at 1/2000 dilution + Human brain lysate at 10 µg

**Secondary**

Goat Anti-Rabbit IgG Peroxidase Conjugate, specific to the non-reduced form of IgG at 1/4000 dilution

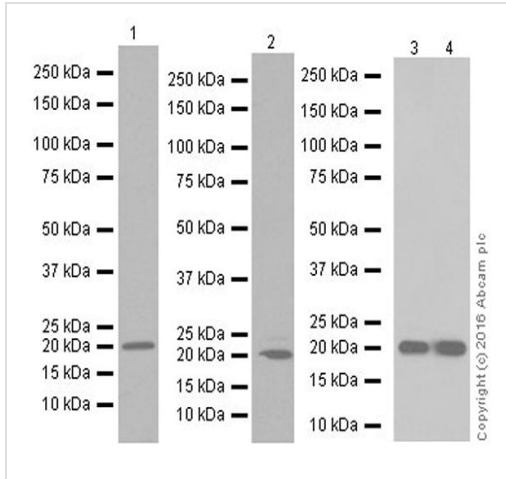
**Predicted band size:** 21 kDa

**Observed band size:** 21 kDa

**Exposure time:** 3 seconds

Blocking/Dilution buffer: 5% NFDM/TBST.





Western blot - Anti-HP1 gamma/CBX3 antibody [EPR19802] (ab217999)

**All lanes :** Anti-HP1 gamma/CBX3 antibody [EPR19802] (ab217999) at 1/2000 dilution

**Lane 1 :** Mouse brain lysate

**Lane 2 :** Rat brain lysate

**Lane 3 :** C6 (Rat glioma cell line) whole cell lysate

**Lane 4 :** NIH/3T3 (Mouse embryonic fibroblast cell line) whole cell lysate

Lysates/proteins at 10 µg per lane.

### Secondary

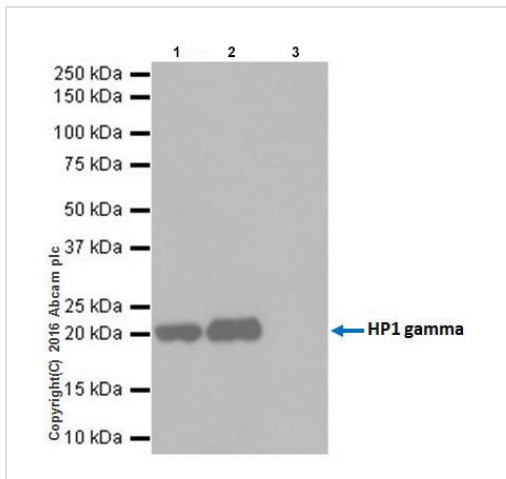
**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

**Predicted band size:** 21 kDa

**Observed band size:** 21 kDa

Blocking/Dilution buffer: 5% NFDm/TBST.

Exposure time: Lane 1: 3 seconds; Lane 2: 10 seconds; Lane 3 and 4: 3 seconds.



Immunoprecipitation - Anti-HP1 gamma/CBX3 antibody [EPR19802] (ab217999)

HP1 gamma/CBX3 was immunoprecipitated from 0.35 mg of HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate with ab217999 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab217999 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, 10 µg (Input).





Lane 2: ab217999 IP in HeLa whole cell lysate.

Lane 3: Rabbit monoclonal IgG ([ab172730](#)) instead of ab217999 in HeLa whole cell lysate.

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

Exposure time: 1 second.

Why choose a recombinant antibody?

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

Anti-HP1 gamma/CBX3 antibody [EPR19802] (ab217999)

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

### Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.cn/abpromise> or contact our technical team.

## Terms and conditions

---

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors