

Product datasheet

Anti-HP1 gamma/CBX3 (citrulline R108) antibody [EPR19802-202] - BSA and Azide free ab251364

KO VALIDATED Recombinant RabMAb[®]

6 Images

Overview

Product name	Anti-HP1 gamma/CBX3 (citrulline R108) antibody [EPR19802-202] - BSA and Azide free
Description	Rabbit monoclonal [EPR19802-202] to HP1 gamma/CBX3 (citrulline R108) - BSA and Azide free
Host species	Rabbit
Tested applications	Suitable for: WB, Flow Cyt, Dot blot, IP
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide within Mouse HP1 gamma/CBX3 aa 100 to the C-terminus (citrulline R108). The exact sequence is proprietary. Database link: P23198
General notes	ab251364 is the carrier-free version of ab202107 This format is designed for use in antibody labeling, including fluorochromes, metal isotopes, oligonucleotides, enzymes.

Our [carrier-free formats](#) are supplied in a buffer free of BSA, sodium azide and glycerol for higher conjugation efficiency.

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.

Ab251364 is compatible with the Maxpar[®] Antibody Labeling Kit from Fluidigm.

Maxpar[®] is a trademark of Fluidigm Canada Inc.

This product was previously labelled as HP1 gamma

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](#).

Reproducibility is key to advancing scientific discovery and accelerating scientists' next

breakthrough.

Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.

We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.

We are also updating the applications & species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

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, as well as customer reviews and Q&As.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Clonality	Monoclonal
Clone number	EPR19802-202
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab251364** in the following tested applications.

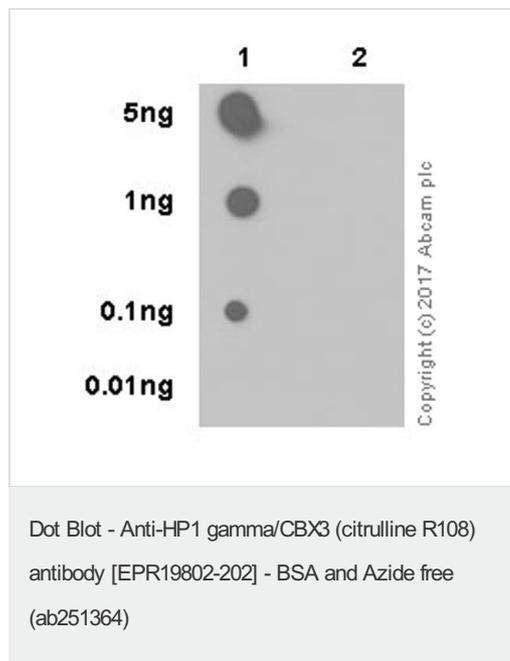
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use at an assay dependent concentration. Detects a band of approximately 21 kDa (predicted molecular weight: 21 kDa).
Flow Cyt		Use at an assay dependent concentration.
Dot blot		Use at an assay dependent concentration.
IP		Use at an assay dependent concentration.

Target

Function	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.
Sequence similarities	Contains 2 chromo domains.
Post-translational modifications	Phosphorylated by PIM1. Phosphorylated during interphase and possibly hyper-phosphorylated during mitosis.
Cellular localization	Nucleus. Associates with euchromatin and is largely excluded from constitutive heterochromatin. May be associated with microtubules and mitotic poles during mitosis.

Images



This data was developed using [ab202107](#), the same antibody clone in a different buffer formulation.

Dot blot analysis of HP1 gamma/CBX3 (citruiline R108) labeled with [ab202107](#) at 1/1000 dilution.

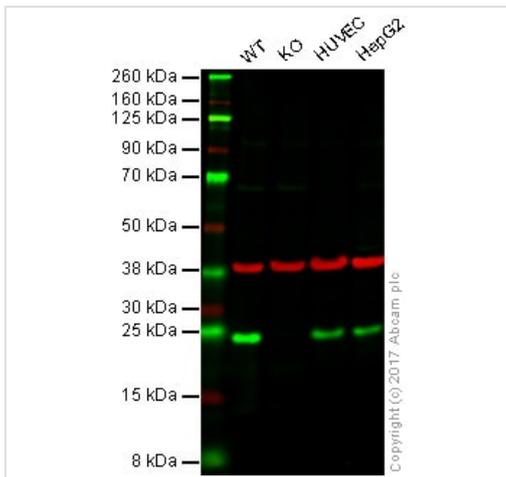
Lane 1: HP1 gamma/CBX3 (citruiline R108) peptide;

Lane 2: HP1 gamma/CBX3 (non-citruiline) peptide;

Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution was used as secondary antibody.

Blocking/Dilution buffer: 5% NFDm/TBST.

Exposure time: 3 minutes.



Western blot - Anti-HP1 gamma/CBX3 (citruilline R108) antibody [EPR19802-202] - BSA and Azide free (ab251364)

This data was developed using [ab202107](#), the same antibody clone in a different buffer formulation.

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

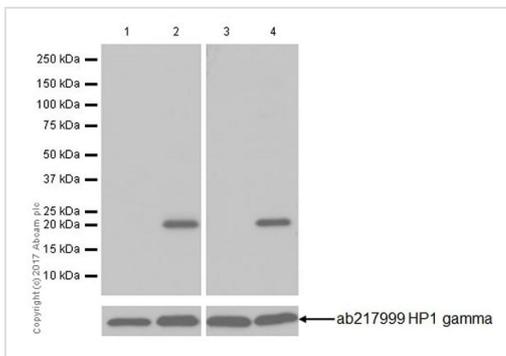
Lane 2: HP1 gamma/CBX3 knockout HAP1 whole cell lysate (20 µg)

Lane 3: HUVEC (umbilicalvein/vascular endothelium) whole cell lysate (20 µg)

Lane 4: HepG2 (human liver hepatocellular carcinoma cell line) whole cell lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green). Green - [ab202107](#) observed at 23 kDa. Red - loading control, [ab8245](#), observed at 37 kDa.

[ab202107](#) was shown to specifically react with HP1 gamma/CBX3 when HP1 gamma/CBX3 knockout samples were used. Wild-type and HP1 gamma/CBX3 knockout samples were subjected to SDS-PAGE. Antibodies [ab202107](#) and [ab8245](#) (Mouse anti GAPDH loading control) were incubated overnight at 4°C at 1000 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 1/10000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-HP1 gamma/CBX3 (citruilline R108) antibody [EPR19802-202] - BSA and Azide free (ab251364)

All lanes : Anti-HP1 gamma/CBX3 (citruilline R108) antibody [EPR19802-202] ([ab202107](#)) at 1/1000 dilution

Lanes 1 & 3 : HEK-293 (human epithelial cell line from embryonic kidney) transfected with a control vector containing GFP tag treated with 10 mM calcium chloride and 10 µM Ionomycin for 2 hours, whole cell lysate

Lane 2 : HEK-293 (human epithelial cell line from embryonic kidney) transfected with GFP-tagged PADI4 (WT) expression vector, treated with 10 mM calcium chloride and 10 µM Ionomycin for 2 hours, whole cell lysate

Lane 4 : HEK-293 (human epithelial cell line from embryonic kidney) transfected with GFP-tagged PADI2 (WT) expression vector treated with 10 mM calcium chloride and 10 µM Ionomycin for 2 hours, 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

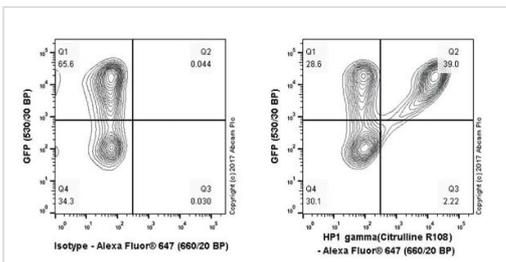
Predicted band size: 21 kDa

Observed band size: 21 kDa

This data was developed using [ab202107](#), the same antibody clone in a different buffer formulation.

Blocking and dilution buffer: 5% NFDN/TBST.

Exposure times: Lanes 1-2: 2 seconds; Lanes 3-4: 6 seconds.

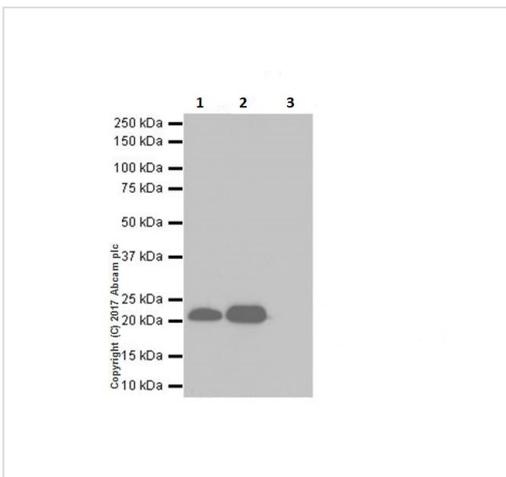


Flow Cytometry - Anti-HP1 gamma/CBX3 (citrulline R108) antibody [EPR19802-202] - BSA and Azide free ([ab251364](#))

This data was developed using [ab202107](#), the same antibody clone in a different buffer formulation.

Flow cytometric analysis of 4% paraformaldehyde-fixed HEK-293 (human epithelial cell line from embryonic kidney) cells transfected with GFP-tagged PAD14 (WT) treated with 10 mM CaCl₂ and 10 μM Ionomycin labeling HP1 gamma/CBX3 (citrulline R108) with [ab202107](#) at 1/3000 dilution (right panel) compared with a rabbit monoclonal IgG isotype control ([ab172730](#)) ([ab150079](#)) was used as the secondary antibody.

Only CaCl₂ and Ionomycin treated, GFP positive cell population result in a positive signal (right panel, Q2).



Immunoprecipitation - Anti-HP1 gamma/CBX3 (citrulline R108) antibody [EPR19802-202] - BSA and Azide free ([ab251364](#))

This data was developed using [ab202107](#), the same antibody clone in a different buffer formulation.

HP1 gamma/CBX3 (citrulline R108) was immunoprecipitated from 0.35 mg HEK-293 (human epithelial cell line from embryonic kidney) transfected with GFP-tagged PAD14 cell lysate treated with 10 mM CaCl₂ and 10 μM Ionomycin for 2 hours with [ab202107](#) at 1/30 dilution. Western blot was performed from the immunoprecipitate using [ab202107](#) at a dilution of 1/2000. VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)) was used for detection at 1/10000 dilution.

Lane 1: HEK-293 transfected with GFP-tagged PAD14 (WT) expression vector whole cell lysate treated with 10 mM CaCl₂ and 10 μM Ionomycin for 2 hours 10 μg (Input).

Lane 2: [ab202107](#) IP in HEK-293 transfected with GFP-tagged PAD14 (WT) expression vector whole cell lysate treated with 10 mM CaCl₂ and 10 μM Ionomycin for 2 hours.

Lane 3: Rabbit monoclonal IgG ([ab172730](#)) instead of [ab202107](#) in HEK-293 transfected with GFP-tagged PADI4 (WT) expression vector whole cell lysate treated with 10 mM CaCl₂ and 10 μM Ionomycin for 2 hours.

Exposure time: 10 seconds.

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-HP1 gamma/CBX3 (citrulline R108) antibody
[EPR19802-202] - BSA and Azide free (ab251364)

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

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