abcam

Product datasheet

Anti-HP1 gamma/CBX3 antibody ab227478

8 Images

Overview

Product name	Anti-HP1 gamma/CBX3 antibody
Description	Rabbit polyclonal to HP1 gamma/CBX3
Host species	Rabbit
Tested applications	**Suitable for:** WB, ICC/IF, IP, IHC-P
Species reactivity	**Reacts with:** Mouse, Human
	Predicted to work with: Rat, Chicken, Cow, Xenopus laevis, Rhesus monkey
Immunogen	Recombinant fragment within Human HP1 gamma/CBX3 (internal sequence). The exact sequence is proprietary. Database link: **Q13185**
Positive control	WB: HeLa cell extracts; HepG2 whole cell lysate. IP: HeLa whole cell lysate. IHC-P: Mouse duodenum and brain tissues; TOV-21G xenograft tissue. ICC/IF: HeLa cells.
General notes	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

Properties

Form	Liquid
Storage instructions	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.
Storage buffer	pH: 7.00 Preservative: 0.01% Thimerosal (merthiolate) Constituents: 78.99% PBS, 1% BSA, 20% Glycerol (glycerin, glycerine)
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee   Our **Abpromise guarantee** covers the use of ab227478 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		1/5000 - 1/20000. Predicted molecular weight: 21 kDa.
ICC/IF		1/100 - 1/1000.
IP		1/100 - 1/500.
IHC-P		1/100 - 1/1000.

Target

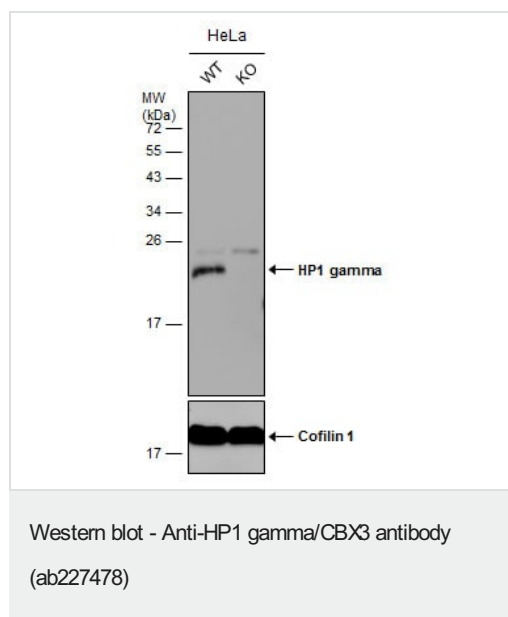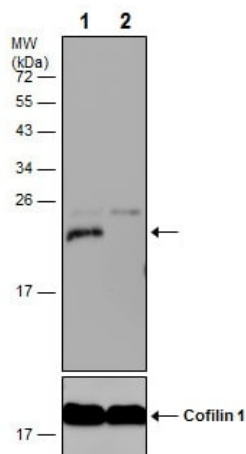|	
Function	Seems to be involved in transcriptional silencing in heterochromatin-like complexes. Recognizes and binds histone H3 tails methylated at 'Lys-9', leading to epigenetic repression. May contribute to the association of the heterochromatin with the inner nuclear membrane through its interaction 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

Anti-HP1 gamma/CBX3 antibody (ab227478) at 1/20000 dilution +
WT HeLa cell extract at 30 µg

Secondary
HRP-conjugated anti-rabbit IgG

Predicted band size: 21 kDa

Western blot - Anti-HP1 gamma/CBX3 antibody
(ab227478)

Western blot - Anti-HP1 gamma/CBX3 antibody (ab227478)

All lanes : Anti-HP1 gamma/CBX3 antibody (ab227478) at 1/20000 dilution

Lane 1 : Wild-type HeLa (human epithelial cell line from cervix adenocarcinoma) cell extract

Lane 2 : HP1 gamma knockout HeLa (human epithelial cell line from cervix adenocarcinoma) cell extract
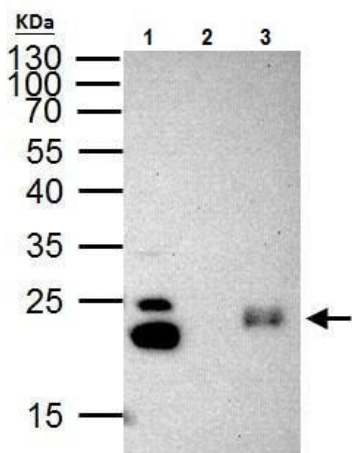
Lysates/proteins at 30 µg per lane.

Secondary

All lanes : HRP-conjugated anti-rabbit IgG

Predicted band size: 21 kDa

15% SDS-PAGE gel.

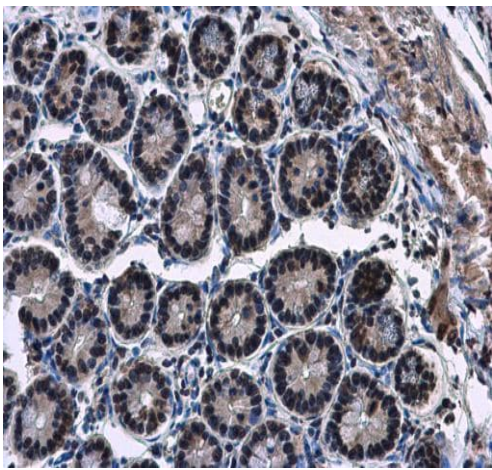Immunoprecipitation - Anti-HP1 gamma/CBX3 antibody (ab227478)

HP1 gamma/CBX3 was immunoprecipitated from HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate with 2 µg ab227478. Western blot was performed from the immunoprecipitate using ab227478 at 1/1000 dilution. Anti-Rabbit IgG was used as a secondary reagent.

Lane 1: HeLa whole cell lysate 40 µg.

Lane 2: Control IP in HeLa whole cell lysate with 2 µg of preimmune rabbit IgG.
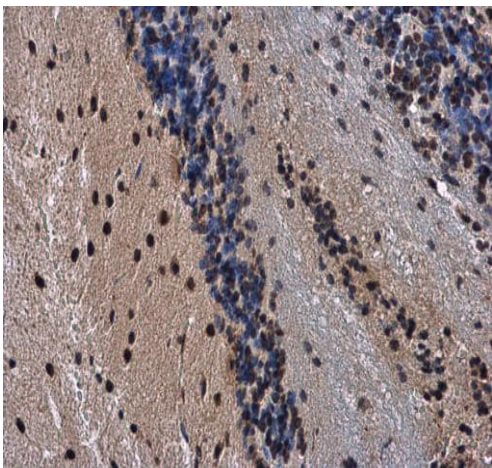
Lane 3: ab227478 IP in HeLa whole cell lysate.
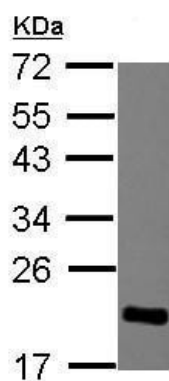
15% SDS-PAGE gel.

Paraffin-embedded mouse duodenum tissue stained for HP1 gamma/CBX3 using ab227478 at 1/500 dilution in immunohistochemical analysis.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HP1 gamma/CBX3 antibody (ab227478)

Paraffin-embedded mouse brain tissue stained for HP1 gamma/CBX3 using ab227478 at 1/500 dilution in immunohistochemical analysis.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HP1 gamma/CBX3 antibody (ab227478)
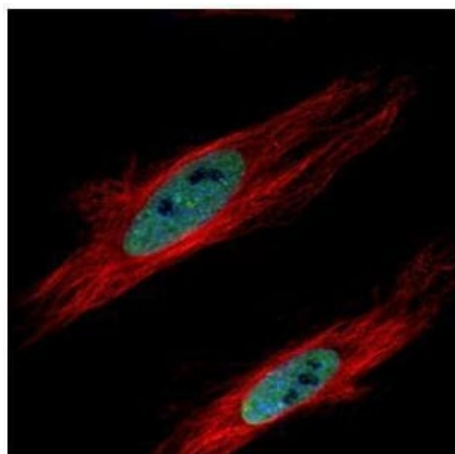
Western blot - Anti-HP1 gamma/CBX3 antibody (ab227478)

Anti-HP1 gamma/CBX3 antibody (ab227478) at 1/10000 dilution + HepG2 (human liver hepatocellular carcinoma cell line) whole cell lysate at 30 µg

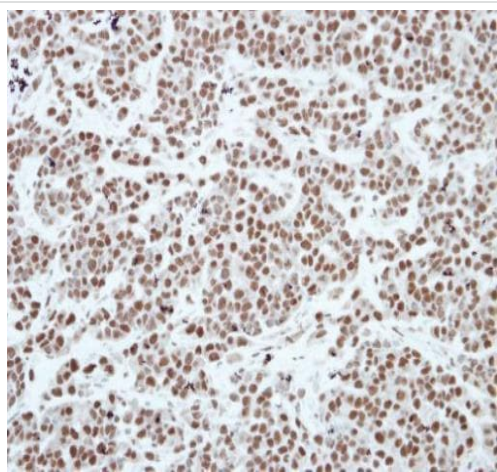**Predicted band size:** 21 kDa

12% SDS-PAGE gel.

Immunocytochemistry/ Immunofluorescence - Anti-HP1 gamma/CBX3 antibody (ab227478)

Paraformaldehyde-fixed HeLa (human epithelial cell line from cervix adenocarcinoma) cells stained for HP1 gamma/CBX3 (green) using ab227478 at 1/500 dilution in ICC/IF.

Alpha-tubulin filaments were labeled with an anti-alpha tubulin antibody at 1/2000 dilution (red).

Paraffin-embedded TOV-21G (human) xenograft tissue stained for HP1 gamma/CBX3 using ab227478 at 1/250 dilution in immunohistochemical analysis.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HP1 gamma/CBX3 antibody (ab227478)

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.com/abpromise** or contact our technical team.

Terms and conditions

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