

## Product datasheet

# Anti-HP1 alpha antibody [3A11F8] ab234085

[5 Images](#)

### Overview

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<b>Product name</b>	Anti-HP1 alpha antibody [3A11F8]
<b>Description</b>	Mouse monoclonal [3A11F8] to HP1 alpha
<b>Host species</b>	Mouse
<b>Tested applications</b>	<b>Suitable for:</b> WB, Flow Cyt, ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Human, Recombinant fragment
<b>Immunogen</b>	Recombinant full length protein corresponding to Human HP1 alpha aa 1 to the C-terminus. Expressed in E. coli. Database link: <a href="#">P45973</a>

 [Run BLAST with](#)

 [Run BLAST with](#)

<b>Positive control</b>	WB: HeLa, NIH/3T3, K562, MCF7, Jurkat and A431 cell lysate; Recombinant human HP1 alpha (amino acids: 1-191) protein; HP1 alpha (amino acids: 1-191)-hlgGFc transfected HEK-293 cell lysate. ICC/IF: HeLa cells. Flow Cytometry: HeLa cells.
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**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

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<b>Form</b>	Liquid
<b>Storage instructions</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>Storage buffer</b>	Preservative: 0.05% Sodium azide Constituent: PBS
<b>Purity</b>	Protein G purified
<b>Purification notes</b>	Purified from tissue culture supernatant.
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	3A11F8

Isotype

IgG1

## Applications

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### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab234085 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		1/100 - 1/500. Predicted molecular weight: 22 kDa.
Flow Cyt		1/200 - 1/400.
ICC/IF		1/200 - 1/1000.

## Target

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### Function

Component of heterochromatin that recognizes and binds histone H3 tails methylated at 'Lys-9' (H3K9me), leading to epigenetic repression. In contrast, it is excluded from chromatin when 'Tyr-41' of histone H3 is phosphorylated (H3Y41ph). Can interact with lamin-B receptor (LBR). This interaction can contribute to the association of the heterochromatin with the inner nuclear membrane. Involved in the formation of functional kinetochore through interaction with MIS12 complex proteins.

### Sequence similarities

Contains 2 chromo domains.

### Post-translational modifications

Phosphorylation of HP1 and LBR may be responsible for some of the alterations in chromatin organization and nuclear structure which occur at various times during the cell cycle (By similarity). Phosphorylated during interphase and possibly hyper-phosphorylated during mitosis. Ubiquitinated.

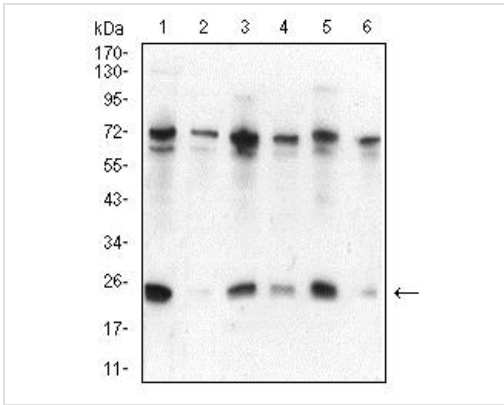
### Cellular localization

Nucleus. Chromosome. Chromosome > centromere. Component of centromeric and pericentromeric heterochromatin. Associates with chromosomes during mitosis. Associates specifically with chromatin during metaphase and anaphase.

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## Images

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Western blot - Anti-HP1 alpha antibody [3A11F8] (ab234085)

**All lanes :** Anti-HP1 alpha antibody [3A11F8] (ab234085) at 1/100 dilution

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

**Lane 2 :** NIH/3T3 (mouse embryo fibroblast cell line) cell lysate

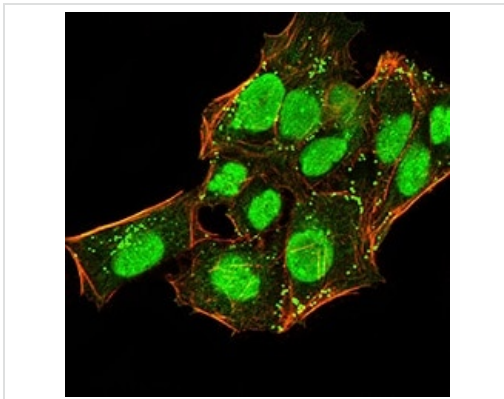
**Lane 3 :** K562 (human chronic myelogenous leukemia cell line from bone marrow) cell lysate

**Lane 4 :** MCF7 (human breast adenocarcinoma cell line) cell lysate

**Lane 5 :** Jurkat (human T cell leukemia cell line from peripheral blood) cell lysate

**Lane 6 :** A431 (human epidermoid carcinoma cell line) cell lysate

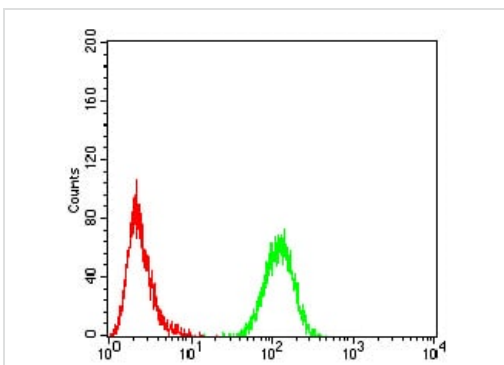
**Predicted band size:** 22 kDa



Immunocytochemistry/ Immunofluorescence - Anti-HP1 alpha antibody [3A11F8] (ab234085)

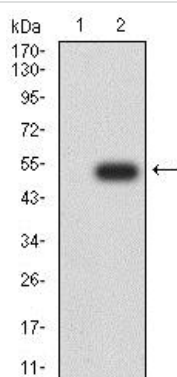
HeLa (human epithelial cell line from cervix adenocarcinoma) cells stained for HP1 alpha (green) using ab234085 at 1/200 dilution in ICC/IF.

Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with AlexaFluor<sup>®</sup>555-Phalloidin.



Flow Cytometry - Anti-HP1 alpha antibody [3A11F8] (ab234085)

Flow Cytometry analysis of HeLa (human epithelial cell line from cervix adenocarcinoma) cells, labeling HP1 alpha with ab234085 at 1/200 dilution (green) compared to a negative control (red).



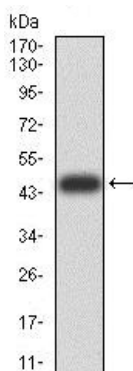
Western blot - Anti-HP1 alpha antibody [3A11F8] (ab234085)

**All lanes :** Anti-HP1 alpha antibody [3A11F8] (ab234085) at 1/100 dilution

**Lane 1 :** HEK-293 (human epithelial cell line from embryonic kidney) cell lysate

**Lane 2 :** HP1 alpha (amino acids: 1-191)-hlgGFc transfected HEK-293 cell lysate

**Predicted band size:** 22 kDa



Western blot - Anti-HP1 alpha antibody [3A11F8] (ab234085)

Anti-HP1 alpha antibody [3A11F8] (ab234085) at 1/100 dilution + Recombinant human HP1 alpha (amino acids: 1-191) protein

**Predicted band size:** 22 kDa

Expected recombinant MW is 48.2 kDa

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

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