

Product datasheet

Anti-KAT2A / GCN5 antibody [EPR21146] - ChIP Grade ab217876

KO VALIDATED Recombinant RabMAb

[2 References](#) [6 Images](#)

Overview

| | |
|----------------------------|--|
| Product name | Anti-KAT2A / GCN5 antibody [EPR21146] - ChIP Grade |
| Description | Rabbit monoclonal [EPR21146] to KAT2A / GCN5 - ChIP Grade |
| Host species | Rabbit |
| Tested applications | Suitable for: ChIP, WB, IP |
| Species reactivity | Reacts with: Mouse, Rat, Human |
| Immunogen | Recombinant fragment within Human KAT2A/ GCN5 aa 50-350. The exact sequence is proprietary. Database link: Q92830 |
| Positive control | WB: HAP1, HEK-293T, MCF7 and HeLa whole cell lysate; human fetal brain tissue lysate; His-tagged human KAT2A / GCN5 recombinant protein (aa86-336). IP: HeLa whole cell lysate. |
| General notes | <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p> <p>Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.</p> <p>Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.</p> <p>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.</p> <p>In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.</p> <p>We are also updating the applications & species that this product has been "predicted to work</p> |

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 short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle. |
| Storage buffer | pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol, 0.05% BSA |
| Purity | Protein A purified |
| Clonality | Monoclonal |
| Clone number | EPR21146 |
| Isotype | IgG |

Applications

Our [Abpromise guarantee](#) covers the use of **ab217876** 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 |
|-------------|-----------|--|
| ChIP | | Use at an assay dependent concentration. |
| WB | | 1/1000. Detects a band of approximately 94 kDa (predicted molecular weight: 94 kDa). |
| IP | | 1/30. |

Target

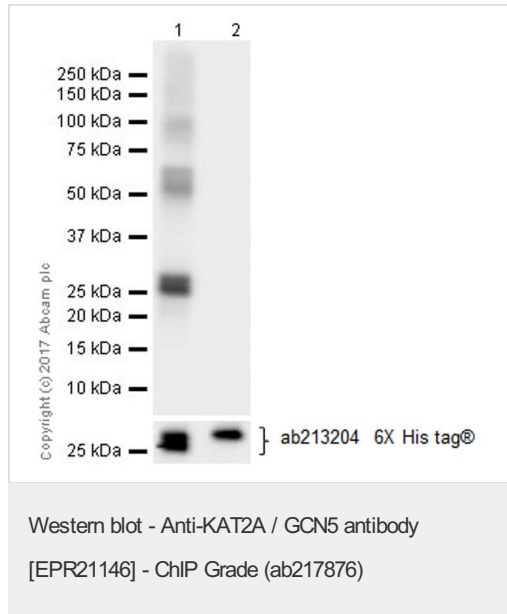
| | |
|------------------------------|---|
| Function | Functions as a histone acetyltransferase (HAT) to promote transcriptional activation. Acetylation of histones gives a specific tag for epigenetic transcription activation. Has significant histone acetyltransferase activity with core histones, but not with nucleosome core particles. In case of HIV-1 infection, it is recruited by the viral protein Tat. Regulates Tat's transactivating activity and may help inducing chromatin remodeling of proviral genes. Component of the ATAC complex, a complex with histone acetyltransferase activity on histones H3 and H4. |
| Tissue specificity | Expressed in all tissues tested, with most abundant expression in ovary. |
| Sequence similarities | Belongs to the GCN5 family. Contains 1 bromo domain. |

Contains 1 N-acetyltransferase domain.

Cellular localization

Nucleus.

Images



All lanes : Anti-KAT2A / GCN5 antibody [EPR21146] - ChIP Grade (ab217876) at 1/1000 dilution

Lane 1 : His-tagged human KAT2A / GCN5 recombinant protein (aa86-336), 10 ng

Lane 2 : His-tagged human KAT2B recombinant protein (aa74-326), 10 ng

Secondary

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

Developed using the ECL technique.

Predicted band size: 94 kDa

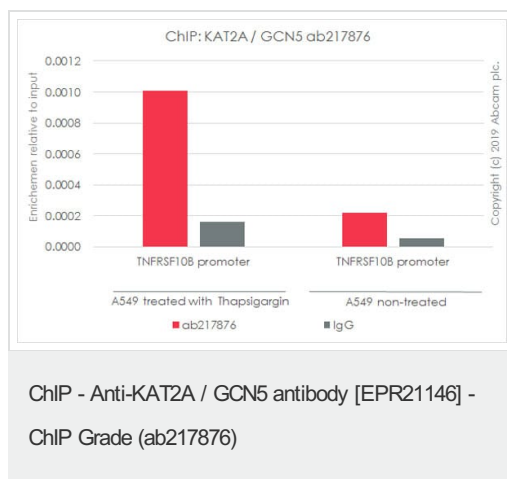
Observed band size: 27 kDa

[why is the actual band size different from the predicted?](#)

Blocking/Dilution buffer: 5% NFDM/TBST

Exposure time: 1 second

The blot was developed on a BIO-RAD® ChemiDoc™ MP instrument.



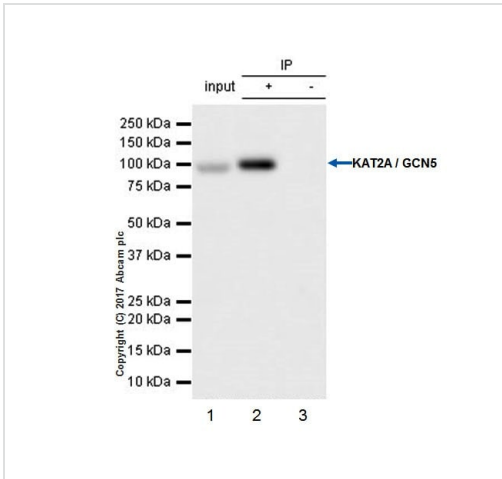
Chromatin was prepared from A549 treated with thapsigargin (1 μ M 12 hours) cells according to the Abcam Dual X-ChIP protocol*. Cells were fixed with EGS for 30 minutes, then formaldehyde for 10 minutes.

The ChIP was performed with 25 μ g of chromatin, 5 μ g of ab217876 (red), and 20 μ l of Protein A/G sepharose beads. 5 μ g of rabbit normal IgG was added to the beads control (gray). The immunoprecipitated DNA was quantified by real time PCR (Sybr green approach).

Primers and probes are located in the first kb of the transcribed region.

*<http://www.abcam.com/resources?>

keywords=X%20ChIP%20protocol



Immunoprecipitation - Anti-KAT2A / GCN5 antibody
[EPR21146] - ChIP Grade (ab217876)

KAT2A / GCN5 was immunoprecipitated from 0.35mg of HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate with ab217876 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab217876 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366), was used for detection at 1/5000 dilution.

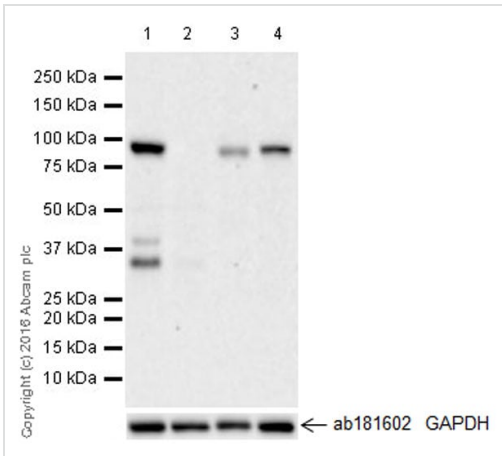
Lane 1: HeLa whole cell lysate 10ug (Input).

Lane 2: ab217876 IP in HeLa whole cell lysate.

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab217876 in HeLa whole cell lysate.

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

Exposure time: 30 seconds.



Western blot - Anti-KAT2A / GCN5 antibody
[EPR21146] - ChIP Grade (ab217876)

All lanes : Anti-KAT2A / GCN5 antibody [EPR21146] - ChIP Grade (ab217876) at 1/1000 dilution

Lane 1 : Wild type HAP1 whole cell lysate

Lane 2 : KAT2A / GCN5-knockout HAP1 whole cell lysate whole cell lysate

Lane 3 : HEK-293T (uman epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate

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

Lysates/proteins at 10 µg per lane.

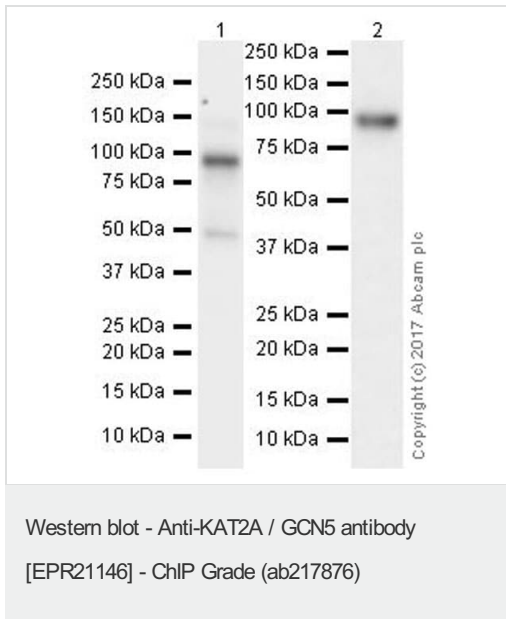
Predicted band size: 94 kDa

Observed band size: 94 kDa

Exposure time: 3 minutes

ab217876 was shown to specifically react with KAT2A / GCN5 in wild-type HAP1 cells as signal was lost in KAT2A / GCN5 knockout cells. Wild-type and KAT2A / GCN5 knockout samples were subjected to SDS-PAGE. Ab217876 and ab181602 (Human anti-GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/200000 dilution respectively. Blots were developed with Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) secondary antibody at 1/100000 dilution for 1 hour at

room temperature before imaging. The blot was developed on a BIO-RAD® ChemiDoc™ MP instrument using the ECL technique.



All lanes : Anti-KAT2A / GCN5 antibody [EPR21146] - ChIP Grade (ab217876) at 1/1000 dilution

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

Lane 2 : Human fetal brain tissue lysate

Lysates/proteins at 10 µg per lane.

Secondary

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

Lane 2 : VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/1000 dilution

Predicted band size: 94 kDa

Observed band size: 94 kDa

Blocking/Dilution buffer: 5% NFD/MTBST

Exposure time: Lane 1: 15 seconds; Lane 2: 3 minutes

The blot was developed on a BIO-RAD® ChemiDoc™ MP instrument.

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-KAT2A / GCN5 antibody [EPR21146] - ChIP Grade (ab217876)

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