# abcam

## Product datasheet

## Anti-KAT1 / HAT1 antibody [EPR18661] ab193097





重组 RabMAb

## 11 图像

## 概述

产品名称 Anti-KAT1 / HAT1抗体[EPR18661]

描述 兔单克隆抗体[EPR18661] to KAT1 / HAT1

宿主 Rabbit

适用于: IHC-P, WB, IP 经测试应用

种属反应性 与反应: Mouse. Rat. Human

Recombinant fragment. This information is proprietary to Abcam and/or its suppliers. 免疫原

阳性对照 WB: HeLa, MCF7, F9, LLC, C6, RAW 264.7, PC-12 and NIH/3T3 whole cell lysates; mouse

> thymus lysate; human fetal brain, fetal kidney, fetal heart and fetal spleen lysates; mouse brain, heart and kidney lysates; rat brain, heart and kidney lysates. IHC-P: Human tonsil; mouse and rat

colon tissues. IP: F9 and HeLa whole cell lysates.

常规说明 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**.

### 性能

形式 Liquid

存放说明 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.

存储溶液 pH: 7.2

Preservative: 0.01% Sodium azide

Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA

纯度 Protein A purified

克隆 单克隆 克隆编号 EPR18661

同种型 ΙgG

#### 应用

The Abpromise guarantee

Abpromise™承诺保证使用ab193097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
IHC-P		1/1000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
WB		1/2000. Detects a band of approximately 45 kDa (predicted molecular weight: 49 kDa).
IP		1/100.

功能

Acetylates soluble but not nucleosomal histone H4 at 'Lys-5' (H4K5ac) and 'Lys-12' (H4K12ac) and, to a lesser extent, acetylates histone H2A at 'Lys-5' (H2AK5ac). Has intrinsic substrate specificity that modifies lysine in recognition sequence GXGKXG. May be involved in nucleosome assembly during DNA replication and repair as part of the histone H3.1 and H3.3 complexes. May play a role in DNA repair in response to free radical damage.

序列相似性

Belongs to the HAT1 family.

发展阶段

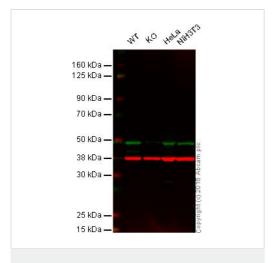
Highly expressed in mitotic cells (at protein level).

细胞定位

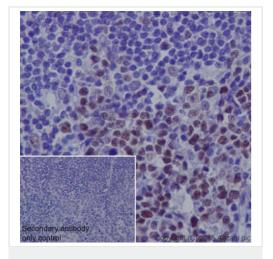
Nucleus matrix and Cytoplasm. Nucleus. Nucleus matrix. Nucleus > nucleoplasm. Localization is predominantly nuclear in normal cells. Treatment with hydrogen peroxide or ionizing radiation

enhances nuclear localization through redistribution of existing protein.

图片



Western blot - Anti-KAT1 / HAT1 antibody [EPR18661] (ab193097)



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-KAT1 / HAT1 antibody [EPR18661] (ab193097)

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

Lane 2: KAT1 / HAT1 knockout HAP1 cell lysate (20 µg)

Lane 3: HeLa cell lysate (20 µg)

Lane 4: NIH3T3 cell lysate (20 µg)

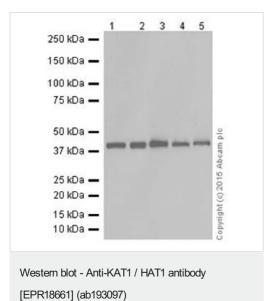
**Lanes 1 - 4:** Merged signal (red and green). Green - ab193097 observed at 48 kDa. Red - loading control, **ab8245**, observed at 37 kDa.

ab193097 was shown to specifically react with KAT1 / HAT1 when KAT1 / HAT1 knockout samples were used. Wild-type and KAT1 / HAT1 knockout samples were subjected to SDS-PAGE. ab193097 and <a href="mailto:ab8245">ab8245</a> (loading control to GAPDH) were diluted to 1/1000 and 1/10000 respectively and incubated overnight at 4°C. Blots were developed with Goat anti-Rabbit lgG H&L (IRDye® 800CW) preadsorbed <a href="mailto:ab216773">ab216773</a> and Goat anti-Mouse lgG H&L (IRDye® 680RD) preadsorbed <a href="mailto:ab216776">ab216776</a> secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging.

Immunohistochemical analysis of paraffin-embedded human tonsil tissue labeling KAT1 / HAT1 with ab193097 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Nuclear staining on human tonsil is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit lgG H&L (HRP) (ab97051) at 1/500 dilution.

Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.



**All lanes :** Anti-KAT1 / HAT1 antibody [EPR18661] (ab193097) at 1/2000 dilution

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

Lane 2 : MCF7 (Human breast adenocarcinoma cell line) whole cell lysate

**Lane 3**: F9 (Mouse embryonic carcinoma cell line) whole cell lysate

Lane 4: LLC (Mouse lung carcinoma) whole cell lysate

Lane 5: Mouse thymus lysate

Lysates/proteins at 20 µg per lane.

## Secondary

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

**Predicted band size:** 49 kDa **Observed band size:** 45 kDa

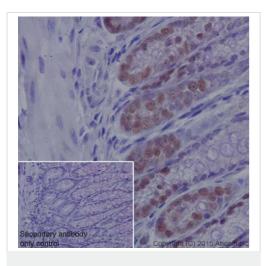
Exposure time: 8 seconds

Blocking/Dilution buffer: 5% NFDM/TBST.

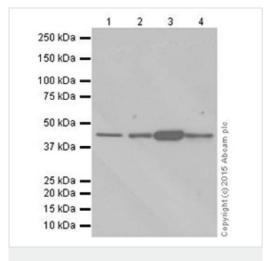
Immunohistochemical analysis of paraffin-embedded mouse colon tissue labeling KAT1 / HAT1 with ab193097 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Nuclear staining on mouse colon is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit lgG H&L (HRP) (ab97051) at 1/500 dilution.

Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-KAT1 / HAT1 antibody [EPR18661] (ab193097)



Western blot - Anti-KAT1 / HAT1 antibody [EPR18661] (ab193097)

**All lanes :** Anti-KAT1 / HAT1 antibody [EPR18661] (ab193097) at 1/2000 dilution

Lane 1: Human fetal brain lysate

Lane 2: Human fetal heart lysate

Lane 3: Human fetal kidney lysate

Lane 4: Human fetal spleen lysate

Lysates/proteins at 10 µg per lane.

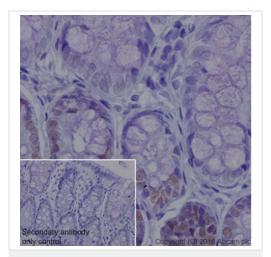
## **Secondary**

**All lanes :** Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/10000 dilution

**Predicted band size:** 49 kDa **Observed band size:** 45 kDa

Exposure time: 30 seconds

Blocking/Dilution buffer: 5% NFDM/TBST.

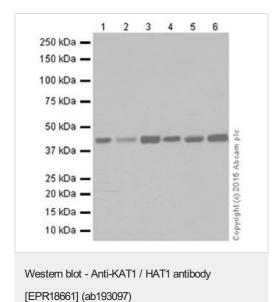


Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-KAT1 / HAT1 antibody
[EPR18661] (ab193097)

Immunohistochemical analysis of paraffin-embedded rat colon tissue labeling KAT1 / HAT1 with ab193097 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Nuclear staining on rat colon is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit lgG H&L (HRP) (ab97051) at 1/500 dilution.

Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.



All lanes: Anti-KAT1 / HAT1 antibody [EPR18661] (ab193097)

Lane 1: Mouse brain lysate

Lane 2: Mouse heart lysate

Lane 3: Mouse kidney lysate

Lane 4: Rat brain lysate

Lane 5: Rat heart lysate

Lane 6: Rat kidney lysate

Lysates/proteins at 10 µg per lane.

## Secondary

All lanes: Goat Anti-Rabbit lgG H&L (HRP) (ab97051) at

1/100000 dilution

Predicted band size: 49 kDa Observed band size: 45 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.

1 2 3 4

250 kDa —

150 kDa —

100 kDa —

75 kDa —

50 kDa —

37 kDa —

25 kDa —

20 kDa —

15 kDa —

10 kDa —

10 kDa —

Western blot - Anti-KAT1 / HAT1 antibody

[EPR18661] (ab193097)

**All lanes :** Anti-KAT1 / HAT1 antibody [EPR18661] (ab193097) at 1/2000 dilution

Lane 1: C6 (Rat glial tumor cells) whole cell lysate

Lane 2: RAW 264.7 (Mouse macrophage cells transformed with

Abelson murine leukemia virus) whole cell lysate

Lane 3 : PC-12 (Rat adrenal gland pheochromocytoma) whole cell

lysate

Lane 4: NIH/3T3 (Mouse embryonic fibroblast cells) whole cell

lysate

Lysates/proteins at 10 µg per lane.

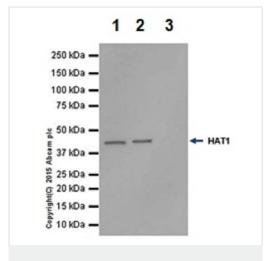
### Secondary

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

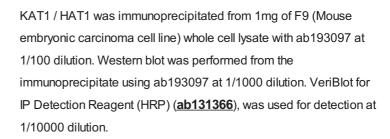
Predicted band size: 49 kDa
Observed band size: 45 kDa

Exposure time: 5 seconds

Blocking/Dilution buffer: 5% NFDM/TBST.



Immunoprecipitation - Anti-KAT1 / HAT1 antibody [EPR18661] (ab193097)



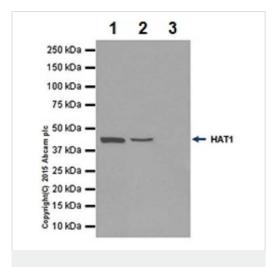
Lane 1: F9 whole cell lysate 10ug (Input).

Lane 2: ab193097 IP in F9 whole cell lysate.

Lane 3: Rabbit monoclonal IgG (<u>ab172730</u>) instead of ab193097 in F9 whole cell lysate.

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

Exposure time: 1 second.



Immunoprecipitation - Anti-KAT1 / HAT1 antibody [EPR18661] (ab193097)

KAT1 / HAT1 was immunoprecipitated from 1mg of HeLa (Human epithelial cells from cervix adenocarcinoma) whole cell lysate with ab193097 at 1/100 dilution. Western blot was performed from the immunoprecipitate using ab193097 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366), was used for detection at 1/10000 dilution.

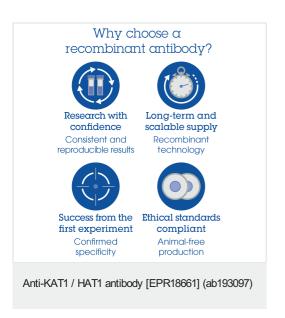
Lane 1: HeLa whole cell lysate 10ug (Input).

Lane 2: ab193097 IP in HeLa whole cell lysate.

Lane 3: Rabbit monoclonal  $\lg G$  ( $\underline{ab172730}$ ) instead of ab193097 in HeLa whole cell lysate.

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

Exposure time: 3 seconds.



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