Anti-Histone H4 (acetyl K8) Antibody [PS01-25] - BSA and Azide free

HA750568

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IF-Cell, IHC-P, ChIP
Molecular Wt:	Predicted band size: 11 kDa
Clone number:	PS01-25

Description: Core component of nucleosome. Nucleosomes wrap and compact DNA into chromatin, limiting DNA accessibility to the cellular machineries which require DNA as a template. Histones thereby play a central role in transcription regulation, DNA repair, DNA replication and chromosomal stability. DNA accessibility is regulated via a complex set of post-translational modifications of histones, also called histone code, and nucleosome remodeling. H4K8ac is part of 17 modifications of a group of active promoters. H4K8ac is found more often in active promoters and transcribed regions than other marks. H4K8ac is modified by a different group of enzymes than other H4 lysines.

Immunogen: Synthetic peptide within Human Histone H4 aa 1-20 (acetyl K8).

Positive control: Human skin tissue, rat skin tissue, human colon carcinoma tissue, PC-12, Hela cell lysate, NIH/3T3 cell lysate, PC-12 cell lysate.

Subcellular location: Nucleus. Chromosome.

Database links: SwissProt: P62805 Human | P62806 Mouse | P62804 Rat

Recommended Dilutions:

WB	1:1,000
IF-Cell	1:50
IHC-P 1	1,000-1:5,000
ChIP	Use 0.5~2 μg for 25 μg of chromatin.

Storage Buffer: PBS (pH7.4).

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

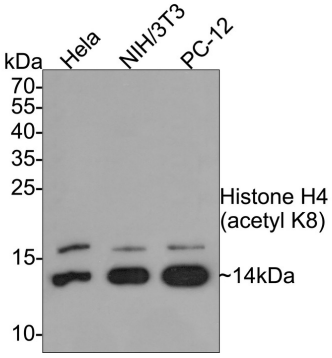

Fig1: Western blot analysis of Histone H4 (acetyl K8) on different lysates with Rabbit anti-Histone H4 (acetyl K8) antibody (HA750568) at 1/500 dilution.

Lane 1: Hela cell lysate, 10 µg/Lane
Lane 2: NIH/3T3 cell lysate, 10 µg/Lane
Lane 3: PC-12 cell lysate, 10 µg/Lane

Predicted band size: 11 kDa
Observed band size: 14/16 kDa

Exposure time: 2 minutes;

15% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA750568) at 1/500 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:300,000 dilution was used for 1 hour at room temperature.

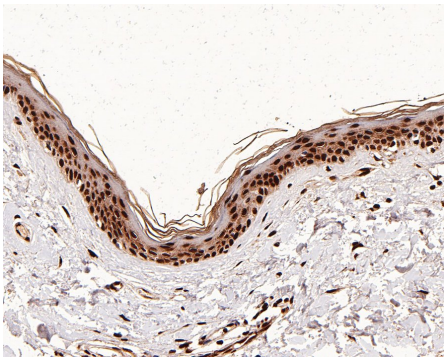

Fig2: Immunohistochemical analysis of paraffin-embedded human skin tissue with Rabbit anti-Histone H4 (acetyl K8) antibody (HA750568) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) (high pressure) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA750568) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

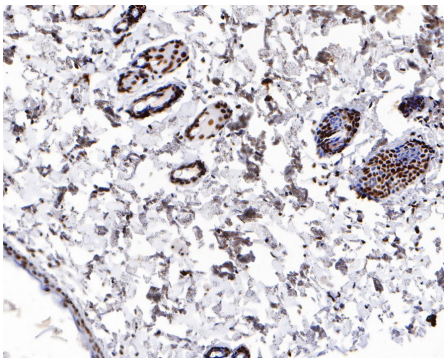

Fig3: Immunohistochemical analysis of paraffin-embedded rat skin tissue with Rabbit anti-Histone H4 (acetyl K8) antibody (HA750568) at 1/5,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) (high pressure) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA750568) at 1/5,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

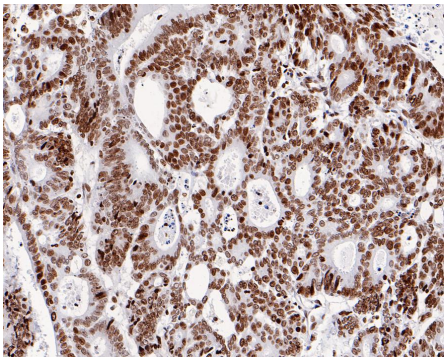

Fig4: Immunohistochemical analysis of paraffin-embedded human colon carcinoma tissue with Rabbit anti-Histone H4 (acetyl K8) antibody (HA750568) at 1/5,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) (high pressure) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA750568) at 1/5,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

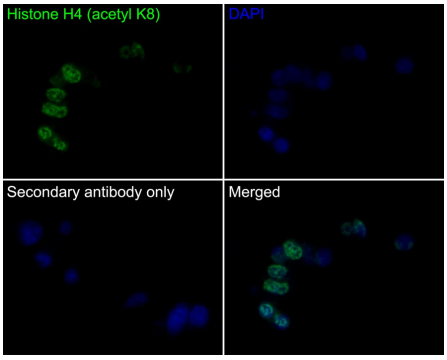

Fig5: Immunocytochemistry analysis of PC-12 cells labeling Histone H4 (acetyl K8) with Rabbit anti-Histone H4 (acetyl K8) antibody (HA750568) at 1/50 dilution.

Cells were fixed in 4% paraformaldehyde for 10 minutes at 37 ℃, permeabilized with 0.05% Triton X-100 in PBS for 20 minutes, and then blocked with 2% negative goat serum for 30 minutes at room temperature. Cells were then incubated with Rabbit anti-Histone H4 (acetyl K8) antibody (HA750568) at 1/50 dilution in 2% negative goat serum overnight at 4 ℃. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

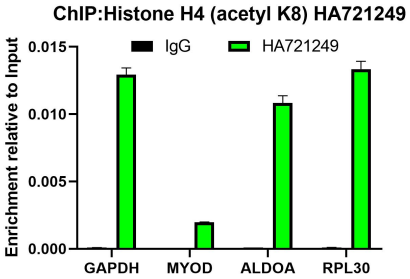

Fig6: Chromatin immunoprecipitations were performed with cross-linked chromatin from HeLa cells with Histone H4 (acetyl K8) (HA750568) or Normal Rabbit IgG according to the ChIP protocol. The enriched DNA was quantified by real-time PCR using indicated primers. The amount of immunoprecipitated DNA in each sample is represented as signal relative to the total amount of input chromatin, which is equivalent to one.

Background References

1. Huang, Suming; Litt, Michael D.; Ann Blakey, C. (2015-11-30). Epigenetic Gene Expression and Regulation. pp. 21–38.
2. Sadoul K, Boyault C, Pabion M, Khochbin S (2008). "Regulation of protein turnover by acetyltransferases and deacetylases". Biochimie. 90 (2): 306–12.