## Anti-Histone H3 (acetyl K23) Antibody [JE46-39] HA721840



Product Type: Recombinant Rabbit monoclonal IgG, primary antibodies

Species reactivity: Human, Mouse
Applications: WB, IF-Cell

Molecular Wt: Predicted band size: 15 kDa

Clone number: JE46-39

**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.

**Immunogen:** Synthetic peptide corresponding to residues surrounding acetyl-Lys23 of human histone H3 protein.

Positive control: HeLa treated with 500 ng/mL TSA for 4 hours, HeLa treated with 500 ng/mL TSA for 4 hours cell lysate,

NIH/3T3 treated with 500 ng/mL TSA for 4 hours cell lysate.

**Subcellular location:** Nucleus. Chromosome.

Database links: SwissProt P68431 Human | P68433 Mouse

**Recommended Dilutions:** 

**WB** 1:1,000 **IF-Cell** 1:100

Storage Buffer: 1\*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% SodiumAzide.

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

**Purity:** Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Technical:0086-571-89986345

Service mail:support@huabio.cn



**Images** 

**Fig1:** Western blot analysis of Histone H3 (acetyl K23) on different lysates with Rabbit anti-Histone H3 (acetyl K23) antibody (HA721840) at 1/1,000 dilution.

Lane 1: HeLa cell lysate

Lane 2: HeLa treated with 500 ng/mL TSA for 4 hours cell lysate

Lane 3: NIH/3T3 cell lysate

Lane 4: NIH/3T3 treated with 500 ng/mL TSA for 4 hours cell lysate

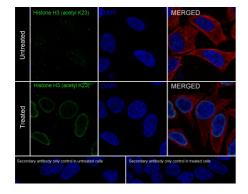
Lysates/proteins at 40 µg/Lane.

Predicted band size: 15 kDa Observed band size: 15/14 kDa

Exposure time: 1 minute;

4-20% 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 (HA721840) at 1/1,000 dilution was used in 5% NFDM/TBST at  $4\,^{\circ}\mathrm{C}$  overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.



**Fig2:** Immunocytochemistry analysis of HeLa cells treated with or without 500 ng/mL TSA for 4 hours labeling Histone H3 (acetyl K23) with Rabbit anti-Histone H3 (acetyl K23) antibody (HA721840) at 1/100 dilution.

Cells were fixed in 4% paraformaldehyde for 10 minutes at 37  $^{\circ}$ C, 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 H3 (acetyl K23) antibody (HA721840) at 1/100 dilution in 2% negative goat serum overnight at 4  $^{\circ}$ C. Goat Anti-Rabbit IgG H&L (iFluor  $^{\text{TM}}$  488, HA1121) was used as the secondary antibody at 1/1,000 dilution. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (M1305-2, red) was stained at 1/100 dilution overnight at +4°C. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

## **Background References**

- 1. Mandal P et al. H3 clipping activity of glutamate dehydrogenase is regulated by stefin B and chromatin structure. FEBS J 281:5292-308 (2014).
- 2. Anderson L et al. Histone deacetylase inhibition modulates histone acetylation at gene promoter regions and affects genome-wide gene transcription in Schistosoma mansoni. PLoS Negl Trop Dis 11:e0005539 (2017).