bs-3776R **[Primary Antibody]**

Histone H3 (acetyl K9) Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 8350 **SWISS:** P68431

Target: Histone H3 (acetyl K9)

Immunogen: KLH conjugated synthesised acetylpeptide derived from human Histone H3 around the acetylation site of K9: AR(Ac-K)ST.

Purification: affinity purified by Protein A

Concentration: 1mg/ml

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: Modulation of the chromatin structure plays an important role in the regulation of transcription in eukaryotes. The nucleosome, made up of four core histone proteins (H2A, H2B, H3 and H4), is the primary building block of chromatin. The N-terminal tail of core histones undergoes different posttranslational modifications including acetylation, phosphorylation and methylation. These modifications occur in response to cell signal stimuli and have a direct effect on gene expression. In most species, the histone H2B is primarily acetylated at lysines 5, 12, 15 and 20. Histone H3 is primarily acetylated at lysines 9, 14, 18 and 23. Acetylation at lysine 9 appears to have a dominant role in histone deposition and chromatin assembly in some organisms. Phosphorylation at Ser10 of histone H3 is tightly correlated with chromosome condensation during both mitosis and meiosis.

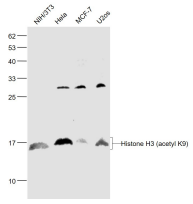
Applications: **WB** (1:500-2000)
IHC-P (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)
Flow-Cyt (1μg/Test)

Reactivity: Human, Mouse, Rat (predicted: Rabbit, Pig, Cow, Fruit Fly)

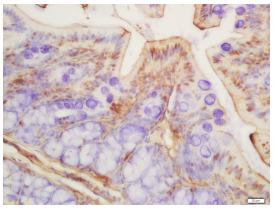
Predicted MW.: 15 kDa

Subcellular Location: Nucleus

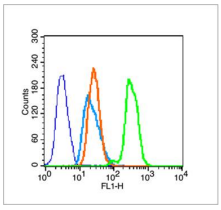
VALIDATION IMAGES



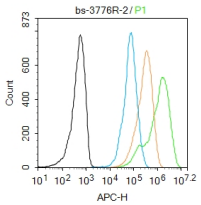
Sample: NIH/3T3(Mouse) Cell Lysate at 30 ug Hela(Human) Cell Lysate at 30 ug MCF-7(Human) Cell Lysate at 30 ug U2os(Human) Cell Lysate at 30 ug Primary: Anti-Histone H3 (acetyl K9) (bs-3776R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 15 kD Observed band size: 15 kD



Tissue/cell: rat colon tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min; Incubation: Anti-Histone H3 (acetyl K9) Polyclonal Antibody, Unconjugated(bs-3776R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Blank control (blue line): Hela (fixed with 70% ethanol (Overnight at 4°C) and then permeabilized with 90% ice-cold methanol for 30 min on ice). Primary Antibody (green line): Rabbit Anti-Histone H3 (acetyl K9) antibody (bs-3776R),Dilution: 1μg /10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG . Secondary Antibody (white blue line): Goat anti-rabbit IgG-FITC,Dilution: 1μg /test.



Blank control: Molt4. Primary Antibody (green

line): Rabbit Anti-Histone H3 (acetyl K9) antibody (bs-3776R) Dilution: 2μg /10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG . Secondary Antibody : Goat anti-rabbit IgG-AF647 Dilution: 1μg /test. Protocol The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at -20°C. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.

SELECTED CITATIONS

- **[IF=5.778]** Li R et al. Effects of PM2.5 exposure in utero on heart injury, histone acetylation and GATA4 expression in offspring mice. Chemosphere.2020 Oct;256:127133. WB ;Mouse. 32454355
- **[IF=4.5]** Guoguo He. et al. Design and synthesis of thiolutin derived PSMD14/HDAC dual-target inhibitors against esophageal squamous cell carcinoma. BIOORG CHEM. 2025 Jul;161:108500 WB ;Human. 40311241
- **[IF=4.427]** Zhang H et al. Aluminum trichloride-induced hippocampal inflammatory lesions are associated with IL-1β-activated IL-1 signaling pathway in developing rats. Chemosphere. 2018 Jul;203:170-178. WB ;Rat. 29614410
- **[IF=3.525]** Jinbing Xue. et al. A novel histone deacetylase inhibitor LT-548-133-1 induces apoptosis by inhibiting HDAC and interfering with microtubule assembly in MCF-7 cells. 2021 Mar 31 WB ;Human. 33788074
- **[IF=4.013]** Xia Liu. et al. Luteolin alleviates non-alcoholic fatty liver disease in rats via restoration of intestinal mucosal barrier damage and microbiota imbalance involving in gut-liver axis. Arch Biochem Biophys. 2021 Oct;711:109019 WB ;Rat. 34478730