# Data Sheet (Cat.No.TMAB-00035)

## Anti-Acetyl-Histone H3 (Lys9) Polyclonal Antibody

### Product Details

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| Ig Type: | IgG |
| Reactivity: | Human,Mouse,Rat (predicted:Pig,Cow,Rabbit,Fruit Fly) |
| Molecular Weight: | Theoretical: 15 kDa. Actual: 15 kDa. |
| Purification: | Protein A purified |

### Applications

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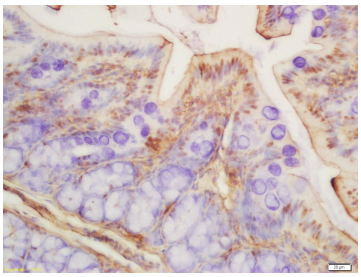
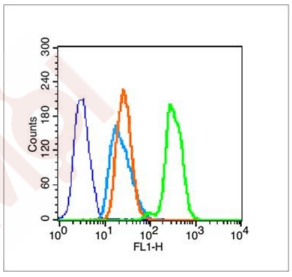
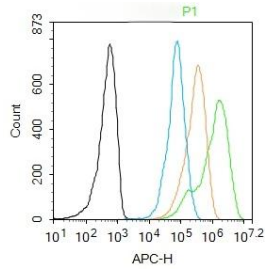
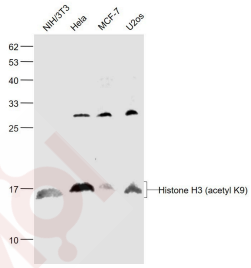
| Verified Activity: | 1. Tissue/cell: rat colon tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;<br>Antigen retrieval: citrate buffer (0.01M, pH6.0), Boiling bathing for 15 min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30 min; Blocking buffer (normal goat serum) at 37°C for 20 min;<br>Incubation: Anti-Histone H3 (acetyl K9) Polyclonal Antibody, Unconjugated (TMAB-00035) 1: 200, overnight at 4°C, followed by conjugation to the secondary antibody and DAb staining.<br>2. 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).<br>Primary Antibody (green line): Rabbit Anti-Histone H3 (acetyl K9) antibody (TMAB-00035),<br>Dilution: 1 µg/10^6 cells;<br>Isotype Control Antibody (orange line): Rabbit IgG.<br>Secondary Antibody (white blue line): Goat anti-rabbit IgG-FITC, Dilution: 1 µg/test.<br>3. Blank control: Molt4. Primary Antibody (green line): Rabbit Anti-Histone H3 (acetyl K9) antibody (TMAB-00035)<br>Dilution: 2 µg/10^6 cells;<br>Isotype Control Antibody (orange line): Rabbit IgG.<br>Secondary Antibody: Goat anti-rabbit IgG-AF647<br>Dilution: 1 µg/test.<br>Protocol<br>The cells were fixed with 4% PFA (10 min 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.<br>4. Sample:<br>NIH/3T3 (Mouse) Cell Lysate at 30 µg<br>Hela (Human) Cell Lysate at 30 µg<br>MCF-7 (Human) Cell Lysate at 30 µg<br>U2os (Human) Cell Lysate at 30 µg<br>Primary: Anti-Histone H3 (acetyl K9) (TMAB-00035) at 1/1000 dilution<br>Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution<br>Predicted band size: 15 kDa<br>Observed band size: 15 kDa |






Application: FCM,IF,IHC-Fr,IHC-P,WB

Recommended: WB: 1:500-2000; IHC-P: 1:100-500; IHC-Fr: 1:100-500; IF: 1:100-500; FCM: 1μg/Test

## Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

## Antigen Details

Immunogen: KLH conjugated synthesised acetylpeptide: human Histone H3 around the acetylation site of K9

Antigen Species: Human

Gene ID: 8350

Uniprot ID: P68431

Synonyms: Acetyl-Histone H3 (K9);Ac-Histone H3 (K9);H3K9ac;Ac-Histone H3 (Lys9);Histone H3.1, Histone H3, histone cluster 1, H3a, HIST1H3A, HIST1H3B, HIST1H3C, HIST1H3D, HIST1H3E, HIST1H3F, HIST1H3G, HIST1H3H, HIST1H3I, HIST1H3J;Histone H3K9-acetylated;Ac-H3K9

Biology Area: ChIP antibodies,Methylated

## Research 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.