Data Sheet (Cat.No.TMAB-07093)

TargetMol

Anti-Acetyl-Histone H3 (Lys14) Antibody (5M950)

Product Details

Ig Type:	IgG
Reactivity:	Human,Mouse,Rat
Molecular Weight:	Theoretical: 15 kDa.
Clone:	5M950
Purification:	Protein A purified

Applications

Verified Activity:

1. The Hela (treated with Trichostatin A (TSA) (1 μM, 18 h)) (H) cells were fixed with 4% PFA (10 min at r. T.) and then permeabilized with 90% ice-cold methanol for 20 min at -20℃, the cells then were incubated in 5% BSA to block non-specific protein-protein interactions (30 min at r. T.), followed by secondary antibody incubation for 40 min at room temperature. Primary Antibody (green): Rabbit Anti-Histone H3 (acetyl K14) antibody (TMAB-07093, 1: 100); Isotype Control (orange): Rabbit IgG. Blank control (black): PBS. Acquisition of 20,000 events was performed.
2. 4% Paraformaldehyde-fixed Hela (treated with Trichostatin A (TSA) (1 μM, 18 h)) (H) cell; Triton X-100 at r. T. for 20 min; Antibody incubation with (Histone H3 (acetyl K14)) monoclonal Antibody, unconjugated (TMAB-07093) 1: 100, 90 min at 37°C; followed by conjugated Goat Anti-Rabbit IgG antibody (green, BF488) at 37°C for 90 min, DAPI (blue) was used to stain the cell nuclei. PBS instead of the primary antibody was used as the blank control.
3. Paraformaldehyde-fixed, paraffin embedded Mouse Colon; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; The section was incubated with Histone H3 (acetyl K14) Monoclonal Antibody, Unconjugated (TMAB-07093) at 1:200 overnight at 4°C, followed by conjugation to the Goat Anti-Rabbit IgG H&L-HRP and DAB staining.
4. Paraformaldehyde-fixed, paraffin embedded Rat Colon; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; The section was incubated with Histone H3 (acetyl K14) Monoclonal Antibody, Unconjugated (TMAB-07093) at 1:200 overnight at 4°C, followed by conjugation to the Goat Anti-Rabbit IgG H&L-HRP and DAB staining.
5. Paraformaldehyde-fixed, paraffin embedded Human Colon; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; The section was incubated with Histone H3 (acetyl K14) Monoclonal Antibody, Unconjugated (TMAB-07093) at 1:200 overnight at 4°C, followed by conjugation to the Goat Anti-Rabbit IgG H&L-HRP and DAB staining.
6. Paraformaldehyde-fixed, paraffin embedded Rat Liver; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; The section was incubated with Histone H3 (acetyl K14) Monoclonal Antibody, Unconjugated (TMAB-07093) at 1:200 overnight at 4°C, followed by conjugation to the Goat Anti-Rabbit IgG H&L-HRP and DAB staining.
7. Paraformaldehyde-fixed, paraffin embedded Human Liver; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; The section was incubated with Histone H3 (acetyl K14) Monoclonal Antibody, Unconjugated (TMAB-07093) at 1:200 overnight at 4°C, followed by conjugation to the Goat Anti-Rabbit IgG H&L-HRP and DAB staining.
8. Paraformaldehyde-fixed, paraffin embedded Human Testicles; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; The section was incubated with Histone H3 (acetyl K14) Monoclonal Antibody, Unconjugated (TMAB-07093) at 1:200 overnight at 4°C, followed by conjugation to the Goat Anti-Rabbit IgG H&L-HRP and DAB staining.

Application:	WB,IHC-P,IHC-Fr,ICC/IF,IF,FCM
Recommended	WB: 1:500-2000; IHC-P: 1:100-500; IHC-Fr: 1:100-500; ICC/IF: 1:100-500; IF: 1:100-500; FCM: 1:50-100

Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. 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 K14
Antigen Species:	Human
Gene ID:	8350
Uniprot ID:	P68431

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.

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