Anti-Histone H3 Antibody [6-A7]

M1306-4

Product Type:	Mouse monoclonal IgG1, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-P, FC, IF-Tissue
Molecular Wt:	Predicted band size: 15 kDa
Clone number:	6-A7

Description: The nucleosome, made up of DNA wound around eight core histone proteins (two each of H2A, H2B, H3, and H4), is the primary building block of chromatin. 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 within Human Histone H3 aa 1-50 / 136.

Positive control: HeLa cell lysate, A549 cell lysate, NIH/3T3 cell lysate, PC-12 cell lysate, C6 cell lysate, human liver tissue, mouse epididymis tissue, mouse testis tissue, rat brain tissue, Hela.

Subcellular location: Nucleus.

Database links: SwissProt: P68431 human | P84243 human | Q16695 human | Q6NXT2 human | Q71DI3 human | P68433 mouse | P84228 mouse | Q6LED0 rat

Recommended Dilutions:

WB	1:5,000-1:20,000
IF-Tissue	1:200
IHC-P	1:1,000
FC	1:500

Storage Buffer: 1*PBS (pH7.4), 0.2% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃ or -80℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

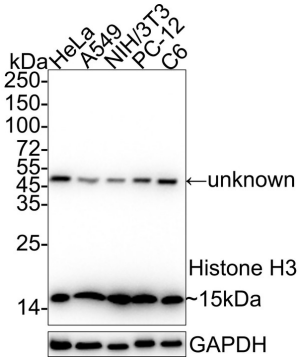

Fig1: Western blot analysis of Histone H3 on different lysates with Mouse anti-Histone H3 antibody (M1306-4) at 1/5,000 dilution.

Lane 1: HeLa cell lysate
Lane 2: A549 cell lysate
Lane 3: NIH/3T3 cell lysate
Lane 4: PC-12 cell lysate
Lane 5: C6 cell lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 15 kDa
Observed band size: 15 kDa

Exposure time: 14 seconds; ECL: K1801;

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 (M1306-4) at 1/5,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Anti-Mouse IgG for IP Nano-secondary antibody (NBI02H) at 1/5,000 dilution was used for 1 hour at room temperature.

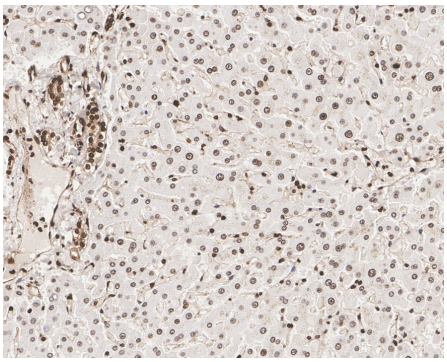

Fig2: Immunohistochemical analysis of paraffin-embedded human liver tissue with Mouse anti-Histone H3 antibody (M1306-4) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) 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 (M1306-4) 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.

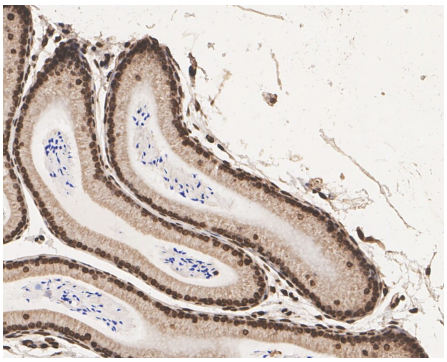

Fig3: Immunohistochemical analysis of paraffin-embedded mouse epididymis tissue with Mouse anti-Histone H3 antibody (M1306-4) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) 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 (M1306-4) 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.

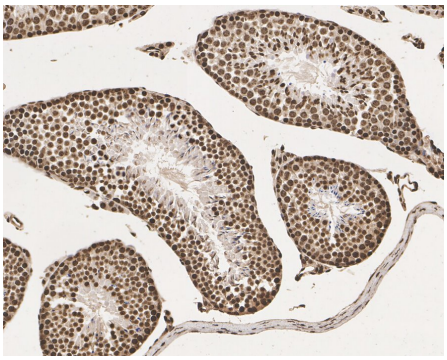

Fig4: Immunohistochemical analysis of paraffin-embedded mouse testis tissue with Mouse anti-Histone H3 antibody (M1306-4) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) 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 (M1306-4) 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.

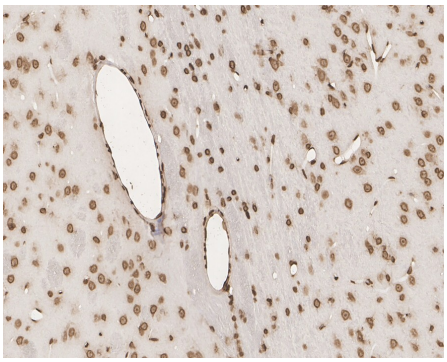

Fig5: Immunohistochemical analysis of paraffin-embedded rat brain tissue with Mouse anti-Histone H3 antibody (M1306-4) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) 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 (M1306-4) 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.

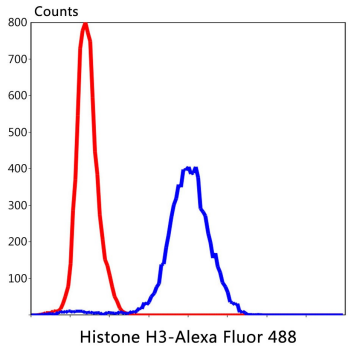

Fig6: Flow cytometric analysis of Hela cells with Histone H3 antibody at 1/50 dilution (red) compared with an unlabelled control (cells without incubation with primary antibody; blue). Alexa Fluor 488-conjugated goat anti mouse IgG was used as the secondary antibody.

Background References

1. Flanagan J.F., Mi L.-Z., Chruszcz M., Cymborowski M., Clines K.L., Kim Y., Minor W., Rastinejad F., Khorasanizadeh S."Double chromodomains cooperate to recognize the methylated histone H3 tail."Nature 438:1181-1185(2005)
2. "Arginine methylation of the histone H3 tail impedes effector binding."Iberg A.N., Espejo A., Cheng D., Kim D., Michaud-Levesque J., Richard S., Bedford M.T.J. Biol. Chem. 283:3006-3010(2008)