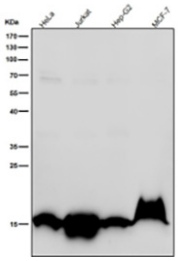
Histone H3 (acetyl K36) Antibody / HIST1H3A [clone 31H90] (FY13025)

Catalog No.	Formulation	Size
FY13025	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

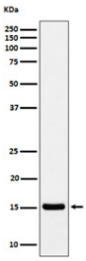
Recombinant RABBIT MONOCLONAL

Bulk quote request

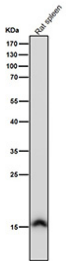
Availability	2-3 weeks
Species Reactivity	Human, Mouse, Rat
Format	Liquid
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	31H90
Purity	Affinity chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	P68431
Applications	Western Blot : 1:500-1:2000 Immunohistochemistry : 1:50-1:200 Immunocytochemistry/Immunofluorescence : 1:50-1:200
Limitations	This Histone H3 (acetyl K36) antibody is available for research use only.



Western blot testing of human samples using the Histone H3 (acetyl K36) antibody at 1:1000 dilution for 1 hour at room temperature.



Western blot analysis of Histone H3 expression in lysate from human HeLa cells treated with Sodium butyrate, using Histone H3 (acetyl K36) antibody.



Western blot testing of rat spleen tissue lysate with the Histone H3 (acetyl K36) antibody at 1:1000 dilution for 1 hour at room temperature.

Description

Histone H3 (acetyl K36) antibody detects acetylated Histone H3 at lysine 36, encoded by the HIST1H3A gene. Histone H3 is one of the core histone proteins forming the nucleosome, the basic structural unit of chromatin. Post-translational modifications of histones, including acetylation, phosphorylation, and methylation, regulate chromatin accessibility and gene expression. Acetylation at lysine 36 is associated with transcriptional activation, elongation, and chromatin organization. Histone H3 (acetyl K36) antibody provides a specific reagent to study this modification and its role in epigenetic regulation.

Histone acetylation neutralizes positive charges on lysine residues, weakening histone-DNA interactions and making chromatin more accessible to transcription factors. Acetylation of lysine 36 in Histone H3 has been shown to facilitate RNA polymerase II elongation and promote recruitment of chromatin remodeling complexes. Studies with Histone H3 (acetyl K36) antibody have revealed that this modification marks actively transcribed genes and is enriched in gene bodies, distinguishing it from promoter-associated acetylations. This underscores its importance in transcriptional fidelity and elongation control.

Dysregulation of Histone H3 acetylation is linked to cancer, developmental disorders, and neurodegeneration. Altered acetylation patterns at lysine 36 contribute to abnormal gene expression in cancers such as leukemia and glioblastoma. Research using Histone H3 (acetyl K36) antibody has shown that histone acetyltransferases and deacetylases targeting this site are often misregulated in tumors, providing potential therapeutic targets. In neurobiology, reduced acetylation has been linked to impaired memory and synaptic plasticity, highlighting its role in cognition and brain function.

Histone H3 (acetyl K36) antibody is applied in chromatin immunoprecipitation, western blotting, and immunofluorescence. Chromatin immunoprecipitation identifies genomic regions marked by acetylation, providing insights into gene regulation. Western blotting confirms acetylation status in whole-cell lysates, while immunofluorescence visualizes global distribution patterns in nuclei. These applications make the antibody essential for epigenetic and transcriptional research.

By supplying validated Histone H3 (acetyl K36) antibody reagents, NSJ Bioreagents supports research into chromatin biology, transcriptional regulation, and disease. Detection of acetylation at lysine 36 provides insight into mechanisms by which epigenetic modifications influence gene expression and cellular identity.

Application Notes

Optimal dilution of the Histone H3 (acetyl K36) antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human Histone H3 (acetyl K36) was used as the immunogen for the Histone H3 (acetyl K36) antibody.

Storage

Store the Histone H3 (acetyl K36) antibody at -20oC.

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