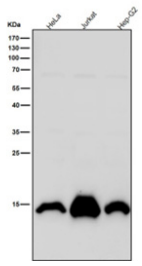
Histone H2A (mono methyl K118) Antibody / HIST1H2AB [clone 31H85] (FY13228)

Catalog No.	Formulation	Size
FY13228	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

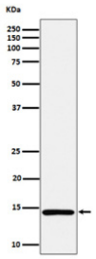
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human, Mouse, Rat
Format	Liquid
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	31H85
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	P04908
Applications	Western Blot : 1:500-1:2000 Immunohistochemistry : 1:50-1:200 Immunocytochemistry/Immunofluorescence : 1:50-1:200
Limitations	This Histone H2A (mono methyl K118) antibody is available for research use only.



Western blot testing of human samples using the Histone H2A (mono methyl K118) antibody at 1:5000 dilution for 1 hour at room temperature. Predicted molecular weight ~15 kDa.



Western blot analysis of Histone H2A (mono methyl K118) expression in human HeLa cell lysate using Histone H2A (mono methyl K118) antibody. Predicted molecular weight ~15 kDa.

Description

Histone H2A (mono methyl K118) antibody detects Histone H2A monomethylated at lysine 118, encoded by the HIST1H2AB gene. Histone H2A is a core nucleosomal protein that forms the nucleosome octamer with histones H2B, H3, and H4. Post translational modifications of histone H2A regulate chromatin structure and gene expression. Monomethylation at lysine 118 represents an important epigenetic mark associated with transcriptional regulation and genome stability. Histone H2A (mono methyl K118) antibody provides researchers with a powerful tool for epigenetic and chromatin research.

Histone modifications such as acetylation, methylation, and phosphorylation function as signals that recruit or repel regulatory proteins. Research using Histone H2A (mono methyl K118) antibody has demonstrated that lysine 118 monomethylation influences transcriptional elongation and DNA damage repair. The modification occurs in the globular domain of histone H2A, suggesting a structural impact on nucleosome stability and interactions with regulatory proteins.

In development, lysine 118 methylation has been linked to regulation of gene expression programs during differentiation. Studies with Histone H2A (mono methyl K118) antibody have shown that abnormal regulation of this mark can disrupt normal transcriptional control, leading to developmental abnormalities. The modification is also dynamically regulated in response to cellular stress, indicating its importance in adaptation and signaling.

Dysregulation of histone H2A methylation, including lysine 118, has been implicated in cancer. Research using Histone H2A (mono methyl K118) antibody has revealed that changes in this modification alter chromatin accessibility and influence oncogene or tumor suppressor gene expression. Because epigenetic states are reversible, histone modifications such as H2A K118 methylation represent potential therapeutic targets in oncology.

Histone H2A (mono methyl K118) antibody is applied in chromatin immunoprecipitation, western blotting, and immunofluorescence. Chromatin immunoprecipitation maps genome wide distribution of the modification, western blotting distinguishes specific modification states, and immunofluorescence reveals nuclear distribution patterns. These applications make Histone H2A (mono methyl K118) antibody essential for chromatin biology research.

By supplying validated Histone H2A (mono methyl K118) antibody reagents, NSJ Bioreagents supports research into epigenetic regulation, transcription, and cancer. Detection of Histone H2A monomethylated at lysine 118 provides insight into chromatin control mechanisms that underlie development and disease.

Application Notes

Optimal dilution of the Histone H2A (mono methyl K118) antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human Histone H2A (mono methyl K118) was used as the immunogen for the Histone H2A (mono methyl K118) antibody.

Storage

Store the Histone H2A (mono methyl K118) antibody at -20oC.