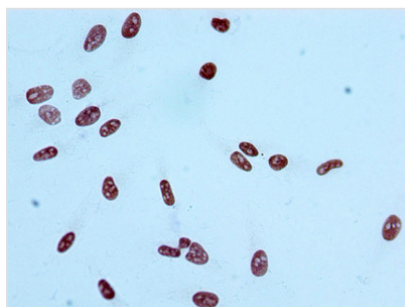




Acetyl-Histone H2A type 1-B/E (K9) Recombinant Monoclonal Antibody

Product Code	CSB-RA010385A09acHU
Abbreviation	Histone H2A type 1-B/E
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P04908
Immunogen	A synthesized peptide
Species Reactivity	Human
Tested Applications	ELISA, ICC, IF; Recommended dilution: ICC:1:50-1:500, IF:1:30-1:200
Relevance	Core component of nucleosome. Nucleosomes wrap and compact DNA into chromatin, limiting DNA accessibility to the cellular machineries which require DNA as a template. 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.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Alias	Histone H2A type 1-B/E, Histone H2A.2, Histone H2A/a, Histone H2A/m, HIST1H2AB, H2AFM, AND, HIST1H2AE, H2AFA
Immunogen Species	Homo sapiens (Human)
Research Area	Epigenetics and Nuclear Signaling
Gene Names	HIST1H2AB
Clone No.	3H5

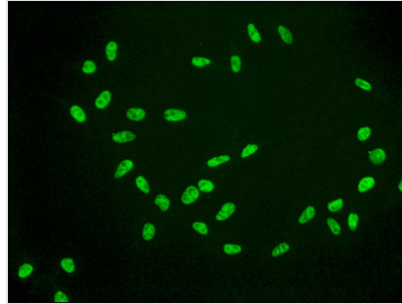
Image



Immunocytochemistry analysis of CSB-RA010385A09acHU diluted at 1:100 and staining in Hela cells performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4° overnight. The primary is detected by a biotinylated secondary antibody and visualized



using an HRP conjugated SP system.



Immunofluorescence staining of HeLa cells(treated by 15mM sodium butyrate for 30min) with CSB-RA010385A09acHU at 1:56,counter-stained with DAPI. The cells were fixed in 4% formaldehyde, permeabilized using 0.2% Triton X-100 and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4?.The secondary antibody was Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L).

Description

Creating the acetyl-Histone H2A type 1-B/E (K9) recombinant monoclonal antibody involves cloning the genes encoding the HIST1H2AB antibody, including both heavy and light chains. These cloned genes are inserted into expression vectors, which are then introduced into host cells through transfection. The host cells take on the responsibility of producing and secreting the antibody. The antibody is subsequently purified through affinity chromatography to ensure its purity and effectiveness. Rigorous functionality testing in applications like ELISA, ICC, and IF confirms its suitability for the precise detection of the human HIST1H2AB protein acetylated at K9.

H2A type 1-B/E K9 acetylation is primarily associated with transcriptional activation. It helps recruit transcriptional activators, coactivators, and chromatin remodeling complexes to gene promoters. This enhances the initiation and progression of transcription, leading to increased gene expression. Acetylation of H2A type 1-B/E at K9 is involved in DNA repair, epigenetic signaling, and coordinated gene regulation.