



Mono/Di/Tri-methyl-Histone H3.1 (K14) Recombinant Monoclonal Antibody

Product Code	CSB-RA010418A14meHU
Abbreviation	Histone H3.1
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P68431
Immunogen	A synthesized peptide
Species Reactivity	Human
Tested Applications	ELISA
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 H3.1, Histone H3/a, Histone H3/b, Histone H3/c, Histone H3/d, Histone H3/f, Histone H3/h, Histone H3/i, Histone H3/j, Histone H3/k, Histone H3/l, HIST1H3A, H3FA, AND, HIST1H3B, H3FL, AND, HIST1H3C, H3FC, AND, HIST1H3D, H3FB, AND, HIST1H3E, H3FD, AND, HIST1H3F, H3FI, AND, HIST1H3G, H3FH, AND, HIST1H3H, H3FK, AND, HIST1H3I, H3FF, AND, HIST1H3J, H3FJ
Immunogen Species	Homo sapiens (Human)
Research Area	Epigenetics and Nuclear Signaling
Gene Names	HIST1H3A
Clone No.	1B2
Description	The process of generating the mono/di/tri-methyl-histone H3.1 (K14) recombinant antibody starts with the cloning of genes encoding the HIST1H3A antibody, encompassing both heavy and light chains. These cloned genes are then incorporated into expression vectors, which are introduced into host cells



via transfection. The host cells are responsible for producing and secreting the antibody. Following purification using affinity chromatography to ensure its purity, the antibody undergoes stringent functionality testing through ELISA, facilitating accurate detection of the human HIST1H3A protein mono/di/tri-methylated at K14.

H3.1 mono-methylation at K14 is associated with both transcriptional activation and repression, depending on the context. Di- or tri-methylation at H3.1 K14 is often linked to transcriptional repression. Di-methylation at H3.1 K14 can be involved in the regulation of genes associated with development, differentiation, and cell cycle control. Tri-methylation at H3.1 K14 is involved in the regulation of genes important for cellular identity, development, and genome stability.