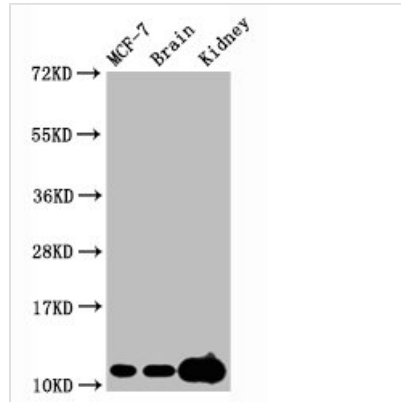




Tri-methyl-Histone H4 (K20) Recombinant Monoclonal Antibody

Product Code	CSB-RA010429A20me3HU
Abbreviation	Histone H4
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P62805
Immunogen	A synthesized peptide
Species Reactivity	Human
Tested Applications	ELISA, WB, ICC; Recommended dilution: WB:1:500-1:5000, ICC:1:50-1:300
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 H4, HIST1H4A, H4/A, H4FA, AND, HIST1H4B, H4/I, H4FI, AND, HIST1H4C, H4/G, H4FG, AND, HIST1H4D, H4/B, H4FB, AND, HIST1H4E, H4/J, H4FJ, AND, HIST1H4F, H4/C, H4FC, AND, HIST1H4H, H4/H, H4FH, AND, HIST1H4I, H4/M, H4FM, AND, HIST1H4J, H4/E, H4FE, AND, HIST1H4K, H4/D, H4FD, AND, HIST1H4L, H4/K, H4FK, AND, HIST2H4A, H4/N, H4F2, H4FN, HIST2H4, AND, HIST2H4B, H4/O, H4FO, AND, HIST4H4
Immunogen Species	Homo sapiens (Human)
Research Area	Epigenetics and Nuclear Signaling
Gene Names	HIST1H4A
Clone No.	1E6
Image	



Western Blot

Positive WB detected in MCF-7 whole cell lysate, Mouse brain tissue, Mouse kidney tissue

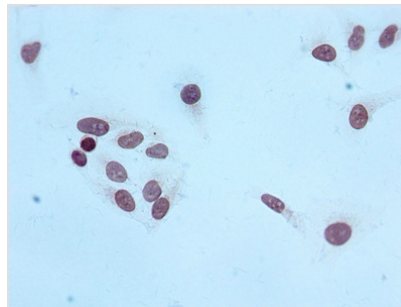
All lanes Tri-methyl-Histone H4 (K20) antibody at 2.15μg/ml

Secondary

Goat polyclonal to rabbit IgG at 1/50000 dilution

Predicted band size: 11 KDa

Observed band size: 11 KDa



Immunocytochemistry analysis of CSB-

RA010429A20me3HU 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.

Description

The production of the tri-methyl-histone H4 (K20) recombinant monoclonal antibody starts with the isolation of genes responsible for encoding the HIST1H4A antibody from rabbits previously immunized with a synthesized peptide derived from the human HIST1H4A protein tri-methylated at K20. These antibody genes are then meticulously cloned into specialized expression vectors. Following this genetic modification, the modified vectors are introduced into host suspension cells, which are carefully cultured to stimulate the expression and secretion of antibodies. After this cultivation phase, the tri-methyl-histone H4 (K20) recombinant monoclonal antibody is subjected to a rigorous purification process utilizing affinity chromatography techniques, effectively separating the antibody from the surrounding cell culture supernatant. Finally, the functionality of the antibody is comprehensively assessed through a battery of tests, including ELISA, WB, and ICC tests, conclusively confirming its ability to interact effectively with the human HIST1H4A protein tri-methylated at K20.

Tri-methylation of HIST1H4A at K20 is an epigenetic modification associated with gene repression and the formation of repressive chromatin structures, such as heterochromatin and silenced gene loci. It plays a vital role in regulating gene expression, maintaining chromatin integrity, and contributing to genome stability.