



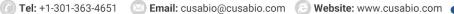


Tri-methyl-Histone H4 (K20) Recombinant Monoclonal Antibody

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 replaic from 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, HIST1H4F, H4/C, H4FC, AND, HIST1H4F, H4/F, H4/		
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ConjugateNon-conjugatedStorage BufferRabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.Purification MethodAffinity-chromatographyIsotypeRabbit IgGClonalityMonoclonalAliasHistone H4, HIST1H4A, H4/A, H4FA, AND, HIST1H4B, H4/I, H4FI, AND, HIST1H4C, H4/G, H4FG, AND, HIST1H4D, H4/B, H4FB, AND, HIST1H4E, H4/J, H4FD, 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, HIST4H4Immunogen SpeciesHomo sapiens (Human)Research AreaEpigenetics and Nuclear SignalingGene NamesHIST1H4AClone No.1E6	Relevance	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
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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	Conjugate	Non-conjugated
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	Storage Buffer	
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	Purification Method	Affinity-chromatography
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	Isotype	Rabbit IgG
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	Clonality	Monoclonal
Research Area Epigenetics and Nuclear Signaling Gene Names HIST1H4A Clone No. 1E6	Alias	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,
Gene Names HIST1H4A Clone No. 1E6	Immunogen Species	Homo sapiens (Human)
Clone No. 1E6	Research Area	Epigenetics and Nuclear Signaling
	Gene Names	HIST1H4A
Image	Clone No.	1E6
	Image	

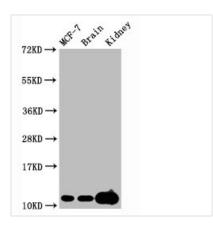
CUSABIO TECHNOLOGY LLC











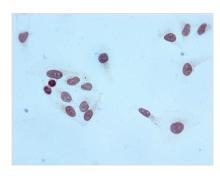
Western Blot

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 trimethyl-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.