

Datasheet for ABIN6972094
anti-Histone H4ac antibody (N-Term)

5 Images

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Overview

Quantity:	100 µg
Target:	Histone H4ac (HIST1H4C)
Binding Specificity:	N-Term
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Application:	Immunocytochemistry (ICC), Immunofluorescence (IF), Western Blotting (WB), Immunohistochemistry (IHC), Chromatin Immunoprecipitation (ChIP), Dot Blot (DB), ChIP DNA-Sequencing (ChIP-seq)

Product Details

Immunogen:	This Histone H4 pan-acetyl antibody was raised against a peptide containing the amino terminal region of <i>Tetrahymena</i> hv1, an H2A variant with homology to mammalian histone H4. The antibody recognizes acetylated histone H4, but not H2A, in HeLa extracts.
Isotype:	IgG
Characteristics:	Histone H4 is one of the core components of the nucleosome. The nucleosome is the smallest subunit of chromatin and consists of 147 base pairs of DNA wrapped around an octamer of core histone proteins (two each of Histone H2A, Histone H2B, Histone H3 and Histone H4). Histone H1 is a linker histone, present at the interface between the nucleosome core and DNA entry/exit points, it is responsible for establishing higher-order chromatin structure. Chromatin is subject to a variety of chemical modifications, including post-translational modifications of the histone proteins and the methylation of cytosine residues in the DNA. Reported histone

Product Details

modifications include acetylation, methylation, phosphorylation, ubiquitylation, glycosylation, ADP-ribosylation, carbonylation and SUMOylation, they play a major role in regulating gene expression. Lysine N-e-acetylation is a dynamic, reversible and tightly regulated protein and histone modification that plays a major role in chromatin remodeling and in the regulation of gene expression in various cellular functions. Acetylation of histone H4 occurs at several different lysine positions in the histone tail, and is performed by Histone Acetyltransferases (HATs) such as Hat1 or Gcn5. Acetylation of histones is often associated with transcriptional activation. Histone H4ac (pan-acetyl) antibody (pAb) was raised in a Rabbit host. It has been validated for use in Chromatin Immunoprecipitation, ChIP-Seq, Dot blot, Immunocytochemistry, Immunofluorescence, Immunohistochemistry and Western blot, it has been shown to react with Human and Mouse samples, but it is predicted that it will react with a wide range of sample types.

Purification:	Protein A Chromatography
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Target Details

Target:	Histone H4ac (HIST1H4C)
Alternative Name:	Histone H4ac (HIST1H4C Products)
Molecular Weight:	8 kDa
NCBI Accession:	XP_001016593

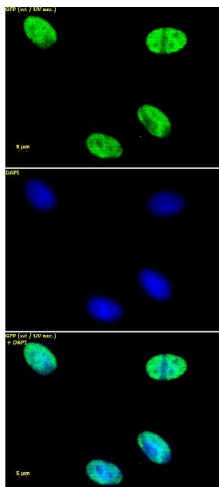
Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Restrictions:	For Research Use only

Handling

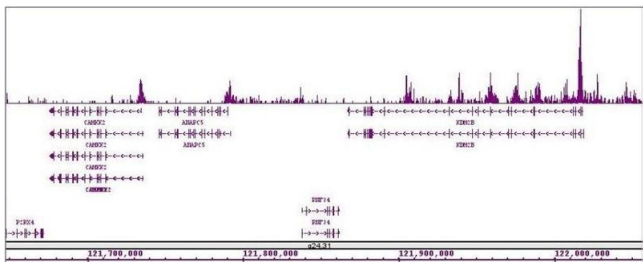
Buffer:	Purified IgG in PBS (pH 7.5) with 30 % glycerol and 0.035 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Avoid repeated freeze/thaw cycles by aliquoting items into single-use fractions for storage at -

20°C for up to 2 years. Keep all reagents on ice when not in storage.



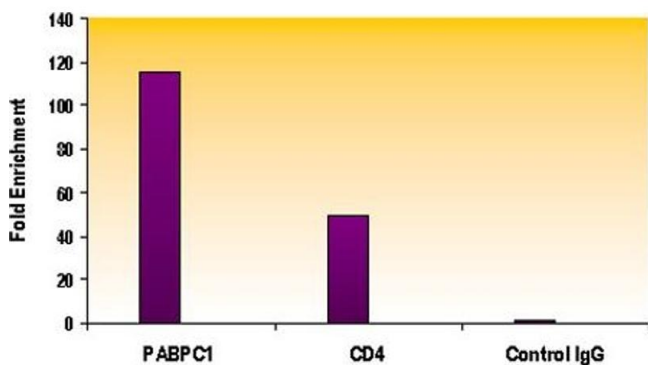
Immunofluorescence

Image 1. Histone H4ac (pan-acetyl) antibody (pAb) tested by immunofluorescence. HeLa cells stained at 2 µg/mL with Histone H4 pan-acetyl antibody. Top panel: Histone H4 pan-acetyl antibody. Middle panel: DAPI. Bottom panel: merge.



ChIP DNA-Sequencing

Image 2. Histone H4ac (pan-acetyl) antibody (pAb) tested by ChIP-Seq. ChIP was performed using the ChIP-IT High Sensitivity Kit with 15 µg of chromatin from a human medulloblastoma cell line and 4 µg of antibody. ChIP DNA was sequenced on the Illumina HiSeq and 12 million sequence tags were mapped to identify Histone H4ac (pan-acetyl) binding sites. The image shows binding across a region of chromosome 12.



Chromatin Immunoprecipitation

Image 3. Histone H4ac (pan-acetyl) antibody (pAb) tested by ChIP. Chromatin IP performed using the ChIP-IT Express Kit and HeLa Chromatin (1.5 x 10⁶ cell equivalents per ChIP) using 3 µg of Histone H4 pan-acetyl antibody or the equivalent amount of rabbit IgG as a negative control. Real-time, quantitative PCR (RT-qPCR) was performed on DNA purified from each of the ChIP reactions using a primer pair specific for the indicated gene. Data are presented as Fold Enrichment of the ChIP antibody signal versus the negative control IgG using the ddCT method.

Images

Please check the [product details page](#) for more images. Overall 5 images are available for ABIN6972094.