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Datasheet for ABIN6972133

anti-Histone H4 antibody (acLys5)

5 Images

Overview

Quantity:	100 µg
Target:	Histone H4
Binding Specificity:	acLys5
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This Histone H4 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF), Chromatin Immunoprecipitation (ChIP), Dot Blot (DB), ChIP DNA-Sequencing (ChIP-seq)

Product Details

Immunogen:	This Histone H4 acetyl Lys5 antibody was raised against a peptide including acetyl-lysine 5 of human histone H4.
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 modifications include acetylation, methylation, phosphorylation, ubiquitylation, glycosylation,

Product Details

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. Histone H4 Molecules acetylated at Lys5 or Lys8 are distributed in overlapping, but non-identical, islands throughout the euchromatic chromosome arms. Histone H4K5ac antibody (pAb) was raised in a Rabbit host. It has been validated for use in Chromatin Immunoprecipitation, ChIP-Seq, Dot blot, Immunofluorescence 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

Target Details

Target: Histone H4

Abstract: [Histone H4 Products](#)

Molecular Weight: 8 kDa

NCBI Accession: [NP_778224](#)

Application Details

Application Notes: Optimal working dilution should be determined by the investigator.

Restrictions: For Research Use only

Handling

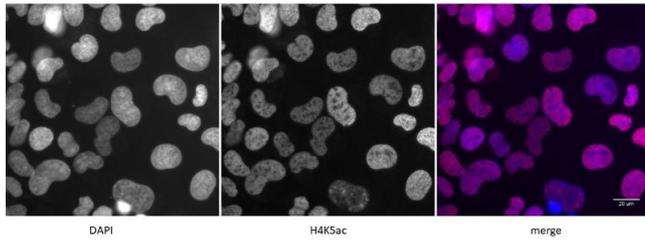
Buffer: Purified IgG in PBS (pH 7.5) with 30 % glycerol and 0.035 % sodium azide.

Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

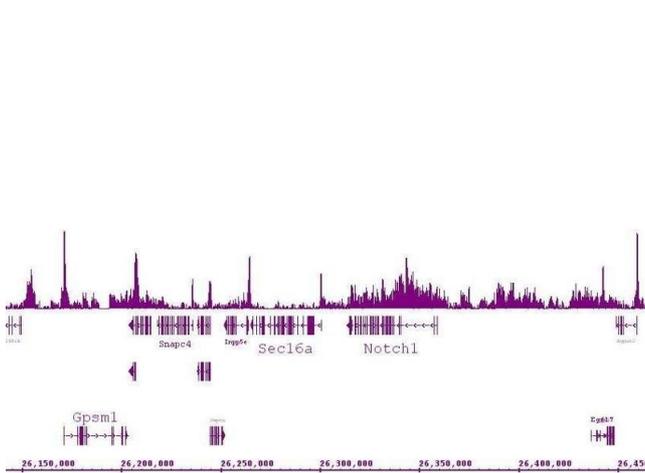
Storage: -20 °C

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.



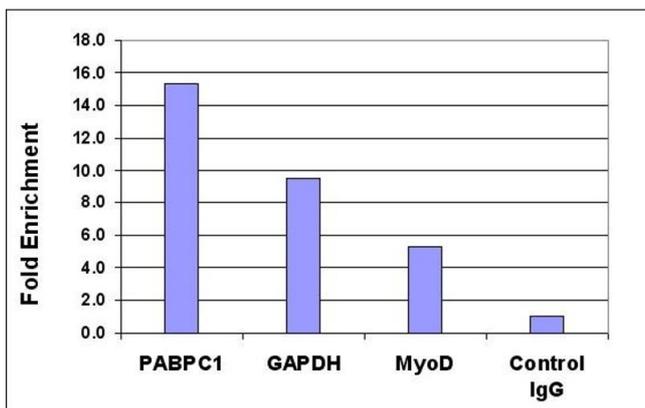
Immunofluorescence

Image 1. Detection of H4K5ac by immunofluorescence. U2OS cells were stained with H4K5ac antibody at a dilution of 1:500. Left panel: DAPI. Middle panel: H4K5ac antibody staining. Right panel: merge.



ChIP DNA-Sequencing

Image 2. Histone H4K5ac antibody (pAb) tested by ChIP-Seq. ChIP was performed using the ChIP-IT High Sensitivity Kit with 15 µg of chromatin from mouse hippocampus cells and 4 µg of antibody. ChIP DNA was sequenced on the Illumina HiSeq and 10 million sequence tags were mapped to identify Histone H4K5ac binding sites. The image shows binding across a region of chromosome 2. You can view the complete data set in the UCSC Genome Browser, starting at this specific location, here.



Chromatin Immunoprecipitation

Image 3. Histone H4K5ac antibody (pAb) tested by ChIP analysis. Chromatin IP performed using the ChIP-IT Express Kit and HeLa Chromatin (1.5 x 10⁶ cell equivalents per ChIP) using 5 µg of Histone H4 acetyl Lys5 pAb 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.

Please check the [product details page](#) for more images. Overall 5 images are available for ABIN6972133.