Datasheet for ABIN6972108

anti-Histone H4 antibody (acLys16)

5 Images

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Overview

Quantity:	100 µL
Target:	Histone H4
Binding Specificity:	acLys16
Reactivity:	Human, Mouse, Saccharomyces cerevisiae, Drosophila melanogaster
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 Lys16 antibody was raised against a peptide including acetyl-lysine 16 of histone H4.
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, ADP-ribosylation, carbonylation and SUMOylation, they play a major role in regulating gene

Product Details

	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. NoRC is a SMARCA5 (SNF2h)-containing chromatin remodeling complex. The bromodomain of TIP5, the large subunit of NoRC, interacts with acetylated Histone H4 Lys16, (H4K16ac) and cooperates with an adjacent PHD finger to recruit histone deacetylases and DNA methyltransferases to rDNA, leading to the silencing of rDNA. Histone H4K16ac 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 Budding Yeast, Drosophila, Human and Mouse samples, but it is predicted that it will react with a wide range of sample types.
Purification:	Serum

Target Details

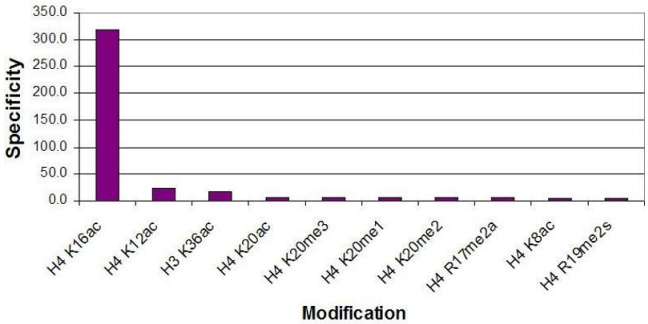
Target:	Histone H4
Abstract:	Histone H4 Products
Molecular Weight:	8 kDa
NCBI Accession:	NP_778224

Application Details

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

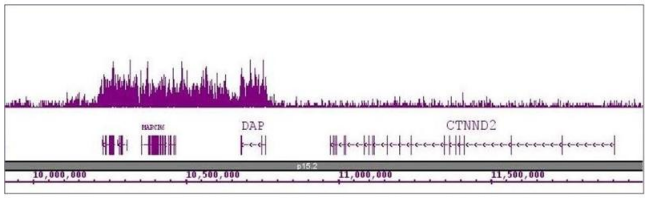
Handling

Buffer:	Rabbit serum containing 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.



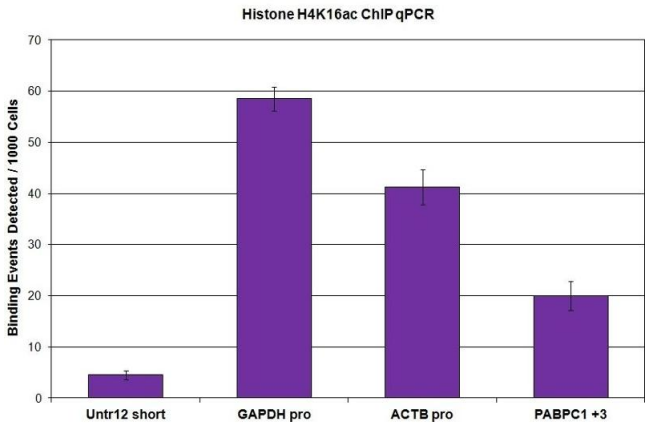
Peptide Array

Image 1. Histone H4K16ac antibody (pAb) specificity tested by peptide array analysis. Peptide array analysis was used to confirm the specificity of this antibody for its intended modification. Histone H4 acetyl Lys16 antibody was applied at a dilution of 1:10,000 to MODified Histone Peptide Array. The arrays were scanned with ArrayAnalysis Software 7 and the results plotted. Specificity data is shown for the most reactive peptides and those related to the immunogen. In the array, the acetyl Lys16 modification is found on peptides with two different backbone sequences (H4 amino acids 1-19 and amino acids 11-30) so reactive and related peptides for both peptides is shown. Array Data File



ChIP DNA-Sequencing

Image 2. Histone H4K16ac antibody (pAb) tested by ChIP-Seq. ChIP was performed using the ChIP-IT High Sensitivity Kit with 15 µg of chromatin from HeLa cells and 10 µL of antibody. ChIP DNA was sequenced on the Illumina HiSeq and 12 million sequence tags were mapped to identify Histone H4K16ac binding sites. The image shows binding across a region of chromosome 5. You can view the complete data set in the UCSC Genome Browser, starting at this specific location, here.



Chromatin Immunoprecipitation

Image 3. Histone H4K16ac antibody (pAb) tested by ChIP. Chromatin immunoprecipitation (ChIP) was performed using the ChIP-IT High Sensitivity Kit with 5 µg of chromatin from HeLa cells and 10 µL of Histone H4K16ac antibody. ChIP DNA was used in qPCR with the negative control primer pairs or gene-specific primer pairs as indicated. Data are presented as Binding Events Detected per 1000 Cells using Epigenetic Services normalization scheme which accounts for primer efficiency and the amount of chromatin

	used in the ChIP reaction.

Please check the product details page for more images. Overall 5 images are available for ABIN6972108.

