

Anti-H4K8ac HIST1H4A Antibody

Catalog Number: CI1066

About HIST1H4A

Histones are the main constituents of the protein part of chromosomes of eukaryotic cells. They are rich in the amino acids arginine and lysine and have been greatly conserved during evolution. Histones pack the DNA into tight masses of chromatin. Two core histones of each class H2A, H2B, H3 and H4 assemble and are wrapped by 146 base pairs of DNA to form one octameric nucleosome. Histone tails undergo numerous post-translational modifications, which either directly or indirectly alter chromatin structure to facilitate transcriptional activation or repression or other nuclear processes. In addition to the genetic code, combinations of the different histone modifications reveal the so-called "histone code". Histone methylation and demethylation is dynamically regulated by respectively histone methyl transferases and histone demethylases.

Overview

| | |
|----------------------|---|
| Product Name | Anti-H4K8ac HIST1H4A Antibody |
| Reactive Species | Human, Mouse |
| Description | Boster Bio Anti-H4K8ac HIST1H4A Antibody (Catalog# CI1066). Tested in ChIP, ELISA, Dot blot, WB, IF applications. This antibody reacts with Human, Mouse. |
| Application | ChIP, Dot blot, ELISA, IF, WB |
| Clonality | Polyclonal |
| Formulation | Affinity purified polyclonal antibody in PBS containing 0.05% azide and 0.05% ProClin 300. |
| Storage Instructions | Store at -20°C. For long-term storage, store at -80°C. Avoid multiple freeze-thaw cycles. |
| Host | Rabbit |
| Uniprot ID | P62805 |

Technical Details

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|-------------------------------|--|
| Immunogen | This antibody is raised in rabbit against the region of histone H4 containing the acetylated lysine 20 (H4K8ac), using a KLH-conjugated synthetic peptide. |
| Recommended Detection Systems | Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot. Boster recommends high sensitivity ChIP-seq Kit (CK1001 & CK1002) for Chromatin Immunoprecipitation. |
| Form | Liquid |
| Concentration | 0.5-1mg/ml, actual concentration vary by lot. Use suggested dilution ratio to decide dilution procedure. |
| Purification | Affinity purified |

Suggested Dilutions

Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.

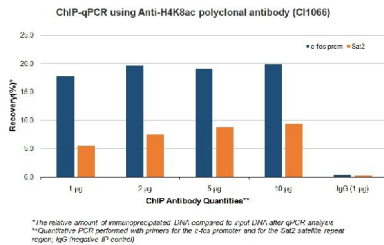
If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.

Some PubMed article(s) citing the expression level of this target are as follows:

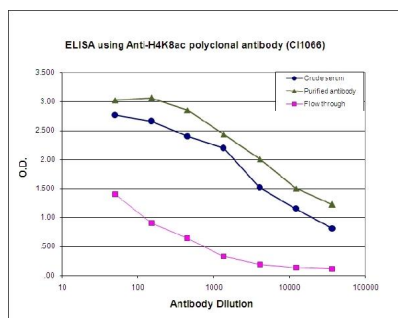
Boster Bio's internal QC testing used:

User needs to optimize the dilution ratio for this antibody.

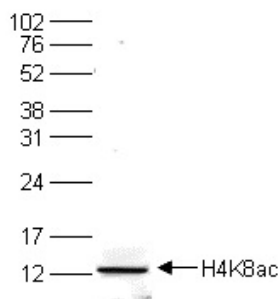
Anti-H4K8ac HIST1H4A Antibody (CI1066) Images



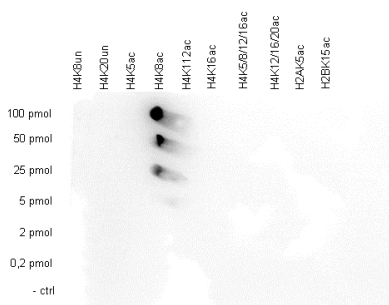
ChIP assays were performed using human HeLa cells, Anti-H4K8ac polyclonal antibody (Catalog # CI1066) and optimized PCR primer sets for qPCR. A titration of the antibody consisting of 1, 2, 5, and 10 µg per ChIP experiment was analysed. IgG (1 µg/IP) was used as negative IP control. QPCR was performed with primers for the c-fos promoter and for the Sat2 satellite repeat region.



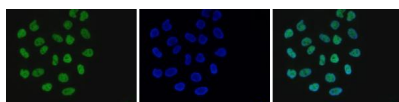
To determine the titer of the antibody, an ELISA was performed using a serial dilution of Anti-H4K8ac polyclonal antibody (Catalog # CI1066), crude serum and flow through in antigen coated wells. The antigen used was a peptide containing the histone modification of interest. By plotting the absorbance against the antibody dilution, the titer of the purified antibody was estimated to be 1:16,700.



Western blot analysis of H4K8ac expression in histone extracts from HeLa cells (15 µg). H4K8ac was detected using Anti-H4K8ac polyclonal antibody (Catalog # CI1066) at 1/200 dilution.



A Dot Blot analysis was performed to test the cross reactivity of Anti-H4K8ac polyclonal antibody (Catalog # CI1066) with peptides containing other histone modifications and the unmodified H4K8. One hundred to 0.2 pmol of the respective peptides were spotted on a membrane. The antibody was used at a dilution of 1:20,000. This figure shows a high specificity of the antibody for the modification of interest.



Immunofluorescence images stained on NIH3T3 cells: (Left) Cells stained with anti-H4K8ac polyclonal antibody (Catalog # CI1066) at 1/500 dilution. (Middle) Nuclei stained with DAPI. (Right) Merged images of two stains from the left and middle.

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