H3K23ac polyclonal antibody

Cat. No. C15310140-100

Type: Polyclonal	Specificity: Human
Size: 100 µl	Isotype: NA
Concentration: not determined	Host: Rabbit
Lot No.: A615-001	Purity: Whole antiserum
Storage buffer: NA	Storage conditions: NA
Precautions: This product is for research use only. Not for use in diagnostic or therapeutic procedures.	

Description

Polyclonal antibody raised in rabbit against histone H3 containing the acetylated lysine 23 (H3K23ac), using a KLH-conjugated synthetic peptide

Applications

Applications	Suggested dilution	References
ELISA	1:100 - 1:500	Fig 1
Dot Blotting	1:1,000	Fig 2
Western Blotting	1:250	Fig 3

Target Description

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. Acetylation of histone is associated with gene activation.

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Validation Data

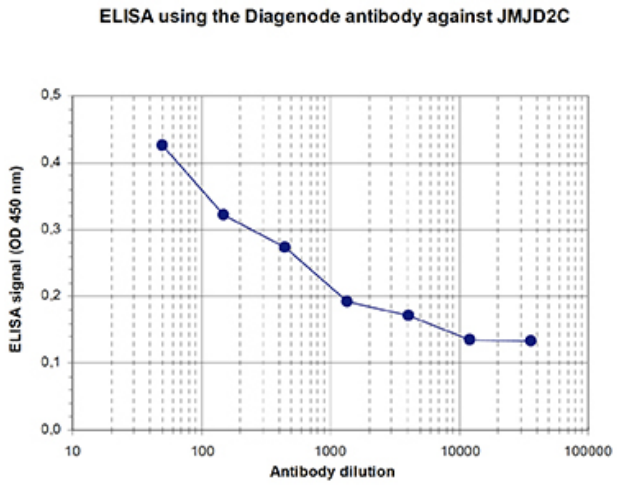

Figure 1. Determination of the titer

To determine the titer, an ELISA was performed using a serial dilution of the Diagenode antibody directed against H3K23ac (Cat. No. CS-140-100). The antigen used was a peptide containing the histone modification of interest. By plotting the absorbance against the antibody dilution (Figure 1), the titer of the antibody was estimated to be 1:2,750.

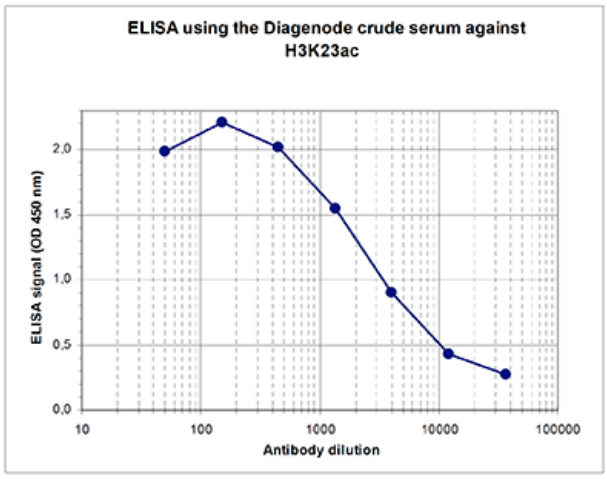

Figure 2. Cross reactivity test using the Diagenode antibody directed against H3K23ac

A Dot Blot analysis was performed to test the cross reactivity of the Diagenode antibody against H3K23ac (Cat. No. CS-140-100) with with peptides containing other modifications and unmodified sequences of histone H3. One hundred to 0.2 pmol of the peptide containing the respective histone modification were spotted on a membrane. The antibody was used at a dilution of 1:1,000. Figure 2 shows a high specificity of the antibody for the modification of interest.

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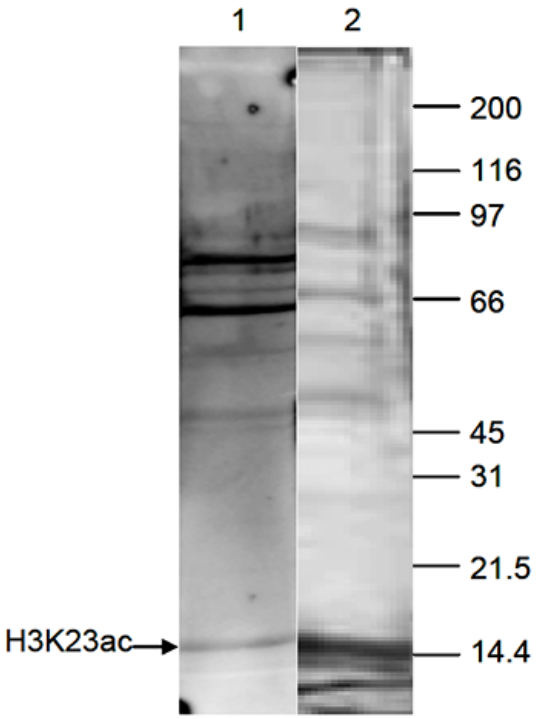

Figure 3. Western blot analysis using the Diagenode antibody against H3K23ac

HeLa cells were treated with butyrate and histone extracts (15 µg) were analysed by Western blot using the Diagenode antibody against H3K23ac (Cat. No. CS-140-100) diluted 1:250 in TBS-Tween containing 5% skimmed milk (lane 1). Lane 2 shows a coomassie blue staining of the gel. The position of the protein of interest is indicated on the left; the marker (in kDa) is shown on the right.

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