diagenode
A Hologic Company

TECHNICAL DATASHEET

H4K12ac monoclonal antibody

Cat. No. C15200218
Type: Monoclonal **ChIP-grade**
Source: Mouse
Lot #: 001-11
Size: 50 µg/ 50 µl
Concentration: 1 µg/µl

Specificity: Human: positive
Other species: not tested
Purity: Protein A purified monoclonal antibody in PBS containing 0.05% azide.
Storage: Store at -20°C; for long storage, store at -80°C. Avoid multiple freeze-thaw cycles.
Precautions: This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Description: Monoclonal antibody raised in mouse against histone H4, aceylated at lysine 12 (H4K12ac), using a KLH-conjugated synthetic peptide.

Applications

	Suggested dilution	Results
ChIP*	1-2 µg/ChIP	Fig 1
Western blotting	1:500	Fig 2

* Please note that the optimal antibody amount per IP should be determined by the end-user. We recommend testing 1-5 µg per IP.

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 H4 is associated with active genes.

Results

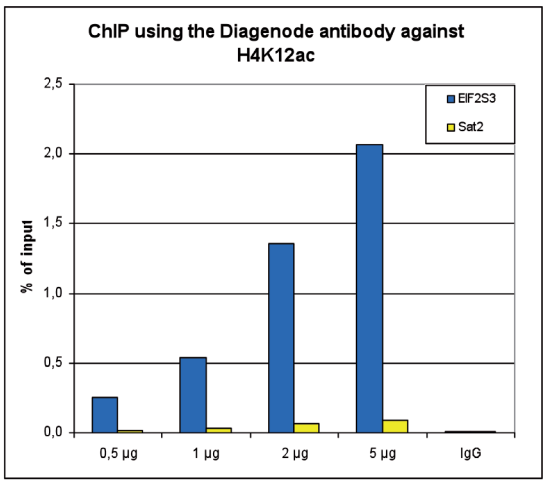

Figure 1. ChIP results obtained with the Diagenode monoclonal antibody directed against H4K12ac

ChIP assays were performed using HeLa cells, the monoclonal antibody against H4K12ac (Cat. No. C15200218) and optimized PCR primer sets for qPCR. ChIP was performed with the "iDeal ChIP-seq" kit (Cat. No. C01010055), using sheared chromatin from 1.5 million cells. A titration of the antibody consisting of 0.5, 1, 2 and 5 µg per ChIP experiment was analysed. IgG (1 µg/IP) was used as negative IP control. QPCR was performed with primers for the coding region of the EIF2S3 gene, used as a positive control, and for the Sat2 satellite repeat, used as a negative control. Figure 1 shows the recovery, expressed as a % of input (the relative amount of immunoprecipitated DNA compared to input DNA after qPCR analysis).

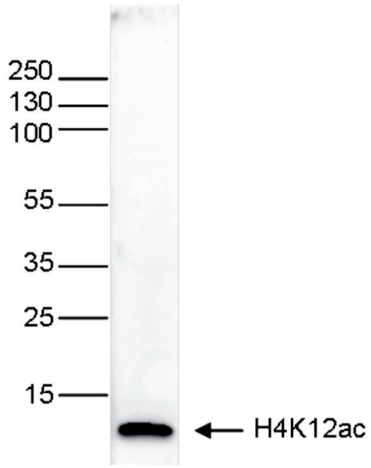

Figure 2. Western blot analysis using the Diagenode monoclonal directed antibody against H4K12ac

Histone extracts (15 µg) from HeLa cells were analysed by Western blot using the Diagenode monoclonal antibody against H4K12ac (Cat. No. C15200218) diluted 1:500 in TBS-Tween containing 5% skimmed milk. The position of the protein of interest is indicated on the right; the marker (in kDa) is shown on the left.

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