diagenode
A Hologic Company

TECHNICAL DATASHEET

H3K18me1 polyclonal antibody

Cat. No. C15410290
Type: Polyclonal **ChIP-grade**
Source: Rabbit
Lot #: 001
Size: 50 µg/ 78 µl
Concentration: 0.65 µg/µl

Specificity: Human, mouse, rat, chicken, C. elegans, Xenopus, Drosophila, plants: positive.
Purity: Affinity purified polyclonal antibody in PBS containing 0.01% azide and 30% glycerol.
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 : Polyclonal antibody raised in rabbit against against histone H3, monomethylated at lysine 18 (H3K18me1), using a KLH-conjugated synthetic peptide.

Applications

	Suggested dilution	Results
ChIP *	2 µg per ChIP	Fig 1
Dot blotting	1:1,000	Fig 2
Western blotting	1:500	Fig 3
IF	1:50	Fig 4
IHC	1:100	

* 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.

Results

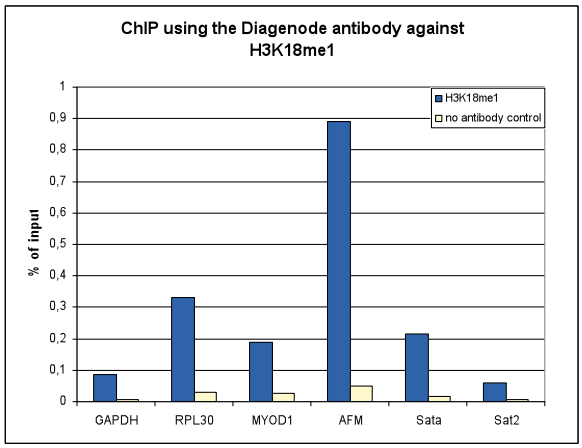

Figure 1. ChIP results obtained with the Diagenode antibody directed against H3K18me1

ChIP assays were performed using 2 µg of the Diagenode antibody against H3K18me1 (cat. No. C15410290) on sheared chromatin from 1 million cells. A no antibody negative IP control was also included. QPCR was performed with primers for the indicated genes or genomic regions. Figure 1 shows the recovery, expressed as a % of input (the relative amount of immunoprecipitated DNA compared to input DNA after qPCR analysis).

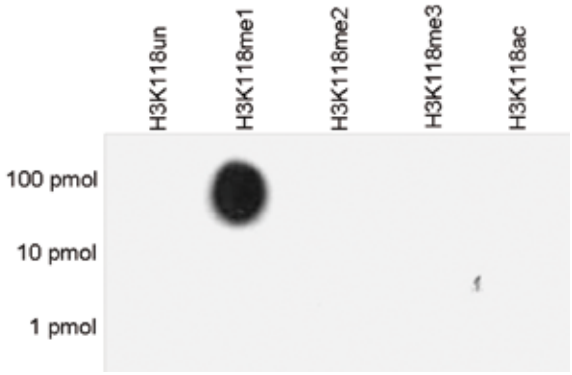

Figure 2. Cross reactivity test of the Diagenode antibody directed against H3K18me1

A Dot Blot analysis was performed to test the cross reactivity of the Diagenode antibody against H3K18me1 (cat. No. C15410290) with peptides containing other modifications of H3K18 and the unmodified sequence. One hundred, 10 and 1 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.

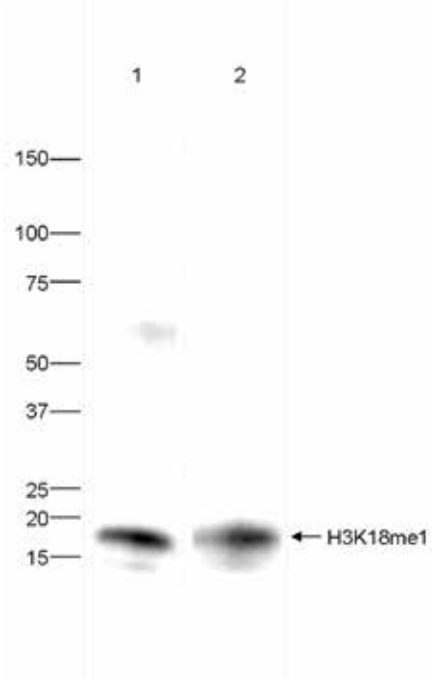

Figure 3. Western blot analysis using the Diagenode antibody directed against H3K18me1

Western blot was performed on histone extracts (30 µg) from HeLa (lane 1) and NIH3T3 cells (lane 2) using the Diagenode antibody against H3K18me1 (cat. No. C15410290) 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.

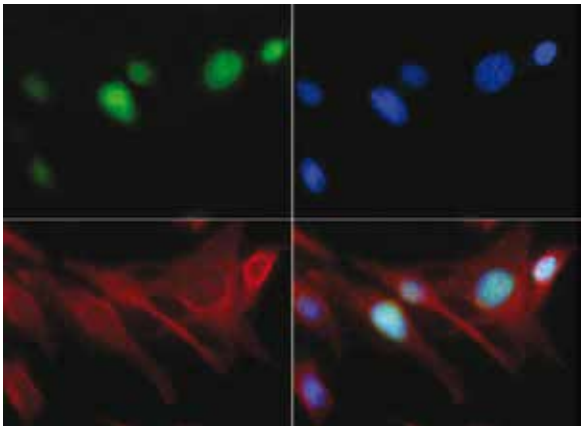

Figure 4. Immunofluorescence using the Diagenode antibody directed against H3K18me1

HeLa cells were stained with the Diagenode antibody against H3K18me1 (cat. No. C15410190) (green), with an anti-actin antibody (red) and with DAPI (blue). Cells were fixed with 0.5% formaldehyde. The cells were incubated with the H3K18me1 antibody diluted 1:50 in blocking solution for 1h at RT, followed by an anti-rabbit antibody conjugated to FITC. The lower right panel shows a merge of the three stainings.

Diagenode sa. BELGIUM | **EUROPE**

LIEGE SCIENCE PARK
Rue Bois Saint-Jean, 3
4102 Seraing (Ougrée) - Belgium
Tel: +32 4 364 20 50
Fax: +32 4 364 20 51
orders@diagenode.com
info@diagenode.com

Diagenode Inc. USA | **NORTH AMERICA**

400 Morris Avenue, Suite 101
Denville, NJ 07834 - USA
Tel: +1 862 209-4680
Fax: +1 862 209-4681
orders.na@diagenode.com
info.na@diagenode.com

Last update: May 20, 2016