diagenode
A Hologic Company

TECHNICAL DATASHEET

H3K36me2 monoclonal antibody - Classic

Cat. No. C15200182

Type: Monoclonal	Specificity: Human: positive. Other species: not tested.
Size: 50 µg/50 µl	Isotype: IgG1
Concentration: 1.0 µg/µl	Host: Mouse
Lot No.: 001-12	Purity: Protein A purified monoclonal antibody.
Storage buffer: PBS containing 0.05% azide.	Storage conditions: 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.	

Last Data Sheet Update: Last data sheet update: March 27, 2020

Description

Monoclonal antibody raised in mouse against histone H3 dimethylated at lysine 36 (H3K36me2), using a KLH-conjugated synthetic peptide.

Applications

Applications	Suggested dilution	References
ChIP *	1-2 µg/ChIP	Fig 1
ELISA	1:3,000	Fig 2
Dot Blotting	1:10,000	
Western Blotting	1:1,000 - 1:2,000	

* 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.

Diagenode sa. BELIGUM | 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
info@diagenode.com | orders@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
info.na@diagenode.com | orders.na@diagenode.com

Validation Data

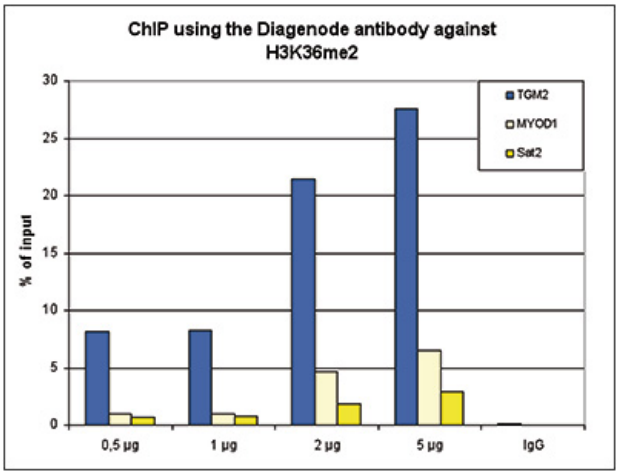

Figure 1. ChIP results obtained with the Diagenode monoclonal antibody directed against H3K36me2
ChIP assays were performed using human HeLa cells, the Diagenode monoclonal antibody against H3K36me2 (Cat. No. C15200182) and optimized PCR primer pairs for qPCR. ChIP was performed with the "Auto Histone ChIP-seq" kit (Cat. No. C01010020), using sheared chromatin from 1 million cells. A titration consisting of 0.5, 1, 2 and 5 µg of antibody per ChIP experiment was analyzed. IgG (1 µg/IP) was used as a negative IP control. Quantitative PCR was performed with primers specific for a genomic region upstream of the TGM2 gene, used as a positive control, and for the inactive MYOD1 gene and the Sat2 satellite repeat, used as negative controls. Figure 1 shows the recovery, expressed as a % of input (the relative amount of immunoprecipitated DNA compared to input DNA after qPCR analysis).

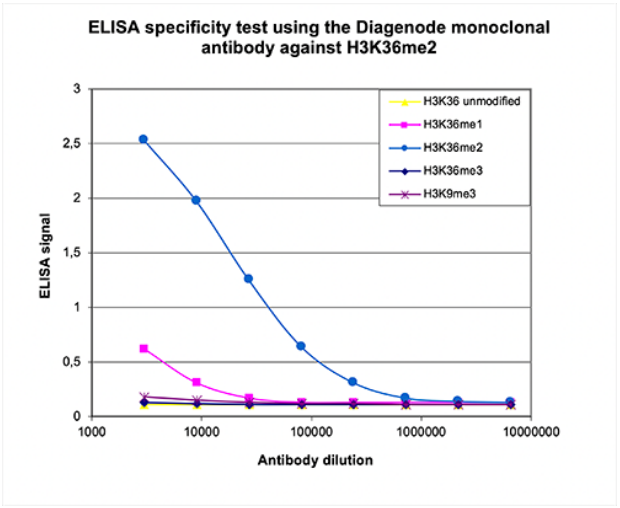

Figure 2. Cross reactivity of the Diagenode monoclonal antibody directed against H3K36me2
To test the specificity an ELISA was performed using a serial dilution of the Diagenode monoclonal antibody against H3K36me2 (Cat. No. C15200182). The wells were coated with peptides containing the unmodified H3K36 region as well as the mono-, di- and trimethylated H3K36 and the trimethylated H3K9. Figure 2 shows a high specificity of the antibody for the peptide containing the modification of interest.

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LIEGE SCIENCE PARK
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Tel: +1 862 209-4680
Fax: +1 862 209-4681
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