diagenode
Innovating Epigenetic Solutions

H3R2me2(asym) polyclonal antibody - Classic

Cat. No. C15410316

Type: Polyclonal **ChIP-grade**

Source: Rabbit

Lot #: 001

Size: 50 µg /50 µl

Concentration: 1 µg/µl

Specificity: Human: positive / Other species: not tested

Purity: Affinity purified polyclonal antibody in PBS containing 0.02% azide and 50% 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 the region of histone H3 containing the asymmetrically dimethylated Arginine 2 (H3R2me2(asym)), using a KLH-conjugated synthetic peptide.

Applications

Applications	Suggested dilution/amount	Results
ChIP*	2 µg/ChIP	Fig 1
Western blotting	1:1,000	Fig 2

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

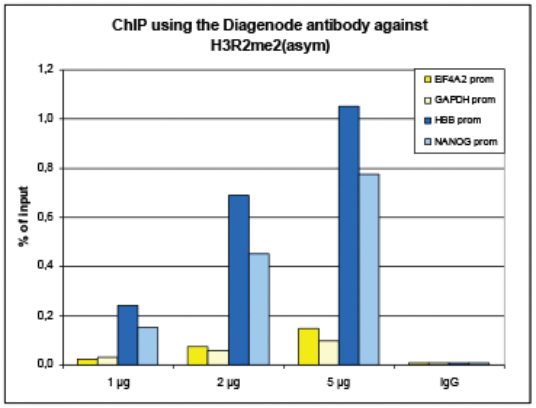

Figure 1. ChIP results obtained with the Diagenode antibody directed against H3R2me2(asym)

ChIP assays were performed using HeLa cells, the Diagenode antibody against H3R2me2(asym) (Cat. No. C15410316) and optimized PCR primer sets for qPCR. ChIP was performed with the "iDeal ChIP-seq" kit (Cat. No. C01010051), using sheared chromatin from 1 million cells. A titration consisting of 1, 2 and 5 µg of antibody per ChIP experiment was analyzed. IgG (2 µg/IP) was used as a negative IP control. Quantitative PCR was performed with optimized primers for the inactive HBB and NANOG promoters, used as positive controls, and for the active EIF4A2 and GAPDH promoters, 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).

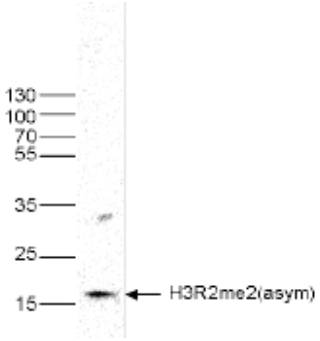

Figure 2. Western blot analysis using the Diagenode antibody directed against H3R2me2(asym)

Histone extracts from HeLa cells were analysed by Western blot using the Diagenode antibody against H3R2me2(asym) (Cat. No. C15410316). The antibody was diluted 1:1,000 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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Last update: May 19, 2015