diagenode
Innovating Epigenetic Solutions

H3R8me2(asym) polyclonal antibody - Classic

Cat. No. C15410286
Type: Polyclonal
Source: Rabbit
Lot #: 001
Size: 50 µg
Concentration: 0.84 µg/µl

Specificity: Human, mouse, C. elegans, rat, chicken, Xenopus, Drosophila, plant
Purity: Affinity purified
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.

Applications

	Suggested dilution	Results
ChIP	2-5 µg/million cells	Figure 1
Immunohistochemistry	1:100	
IF	1:200	Figure 2
Western blot	1:500	Figure 3

Target description

Chromatin is the arrangement of DNA and proteins in which chromosomes are formed. Correspondingly, chromatin is formed from nucleosomes, which are comprised of a set of four histone proteins (H2A, H2B, H3, H4) wrapped with DNA. Chromatin is a very dynamic structure in which numerous post-translational modifications work together to activate or repress the availability of DNA to be copied, transcribed, or repaired. These marks decide which DNA will be open and commonly active (euchromatin) or tightly wound to prevent access and activation (heterochromatin). Common histone modifications include methylation of lysine and arginine, acetylation of lysine, phosphorylation of threonine and serine, and sumoylation, biotinylation, and ubiquitylation of lysine. In particular, dimethylation of H3 Arg8 (H3 R8Me2) is known as a mark of transcriptional repression. The protein arginine methyltransferases PRMT5 and PRMT2 can both methylate Arg8, with PRMT2 specifically methylating in an asymmetric manner. In addition, asymmetric dimethylation of Arg8 inhibits H3K9 methylation by G9a, but symmetric Arg8Me2 does not.

Results

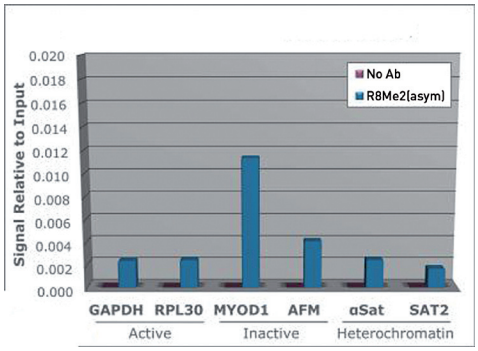

Figure 1. H3R8me2(asym) antibody ChIP results

Chromatin Immunoprecipitation of H3R8me2(asym) antibody. Chromatin from one million formaldehyde cross-linked Hela cells was used with 2 µg of H3R8me2(asym) and 20ul of magnetic beads per immunoprecipitation. A no antibody (No Ab) control was also used. Immunoprecipitated DNA was quantified using quantitative real-time PCR, and normalized to the input chromatin.

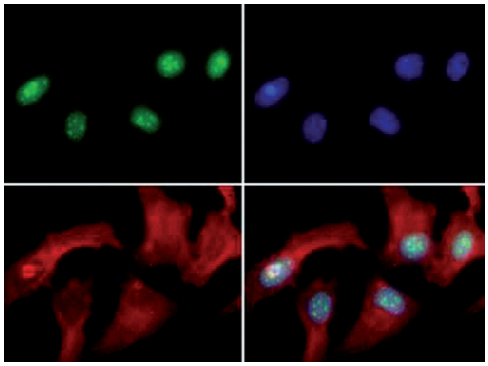

Figure 2 H3R8me2(asym) antibody Immunofluorescence results

Immunofluorescence of H3R8me2(asym) antibody. Tissue: HeLa cells. Fixation: 0.5% PFA. Primary antibody: used at a 1:100 dilution for 1 h at RT. Secondary antibody: FITC secondary antibody at 1:10,000 for 45 min at RT. Localization: H3R8me2(asym) is nuclear and chromosomal. Staining: H3R8me2(asym) is expressed in green and the nuclei and alpha-tubulin are counterstained with DAPI (blue) and Dylight 594 (red).

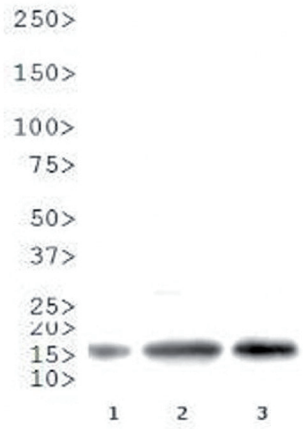

Figure 3. H3R8me2(asym) antibody Western blot results

Western Blot of H3R8me2(asym) antibody. Lane 1: HeLa Histone extracts. 2. NIH-3T3 extracts. Lane 3: C. elegans embryo lysate. Load: 30 µg per lane. Primary antibody diluted 1:500 overnight at 4°C. Secondary antibody: IRDye800™ rabbit secondary antibody at 1:10,000 for 45 min at RT. Predicted/Observed size: ~15 kDa. Other band(s): None.

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

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