diagenode
A Hologic Company

TECHNICAL DATASHEET

H3R17me2a polyclonal antibody - Classic

Cat. No. C15410289
Type: Polyclonal
Source: Rabbit
Lot #: 001
Size: 50 µg
Concentration: 0.83 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
IF	1:50	Figure 2
Western blot	1:500	Figure 3, 4

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, dimetylation of H3 Arg17 (H3 R17Me2) has been linked to gene activation. Coactivator-associated arginine methyltransferase-1 (CARM1) methylates Arg17 with its protein arginine methyltransferase (PRMT) catalytic core. Activation of this modification is linked to transcription hormone response promotors, as well as cell fate regulation. Interestingly, H3 methylation of R17 and R26 contributes to greater pluripotency potential of stem cells, while downregulation of this PTM increases differentiation.

Results

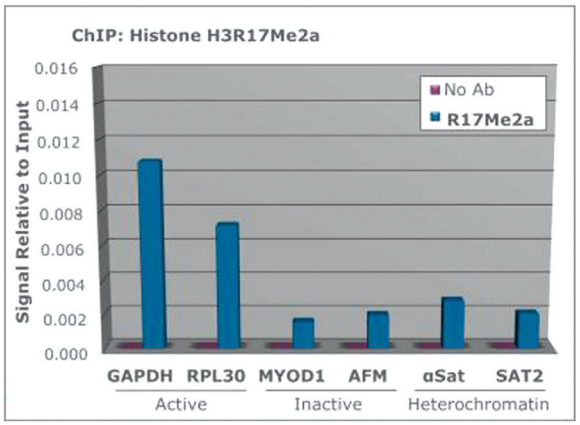

Figure 1. Chromatin Immunoprecipitation

Chromatin Immunoprecipitation of H3R17me2a antibody. Chromatin from one million formaldehyde cross-linked Hela cells was used with 2 ug of H3R17me2a antibody alongside a no antibody (No Ab) control. DNA was measured by qPCR and normalized to total input.

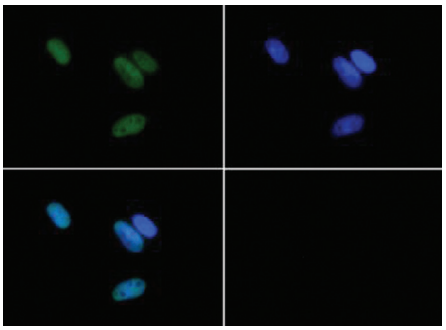

Figure 2. Immunofluorescence

Immunofluorescence of H3R17me2a antibody. Tissue: HeLa cells. Fixation: 0.5% PFA. Primary antibody used at a 1:50 dilution for 1 h at RT. Secondary antibody: FITC secondary antibody at 1:10,000 for 45 min at RT. Localization: Histone H3R17me2a is nuclear and chromosomal. Staining: Histone H3R17me2a is expressed in green, nuclei are counterstained with Dapi (blue).

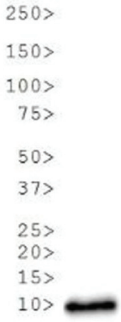

Figure 3. Western Blot

Western Blot of H3R17me2a antibody. 30 µg of C. elegans embryo lysate. Primary antibody used at a 1:500 dilution 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.

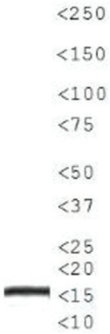

Figure 4. Western Blot

Western Blot of H3R17me2a antibody. 30 µg of NIH-3T3 histone extracts. Primary antibody used at a 1:500 dilution 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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