

H4R3me1 Antibody

Cat. No. C15210022

Type: Monoclonal	Specificity: Human: positive. Other species: not tested.
Size: 100 µg	Isotype: NA
Concentration: 1 µg/µl	Host: Rabbit
Lot No.: 001	Purity: Affinity purified monoclonal antibody
Storage buffer: PBS containing 50% glycerol, 1% BSA and 0.09% 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: August 18, 2020

Description

Monoclonal antibody raised in rabbit against the region of histone H4 containing the monomethylated arginine 3 (H4R3me1), using a KLH-conjugated synthetic peptide.

Applications

Applications	Suggested dilution	References
Dot Blotting	1:10,000	Fig 1
Western Blotting	1:1,000	Fig 2
Immunofluorescence	1:500	Fig 3

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.

Validation Data

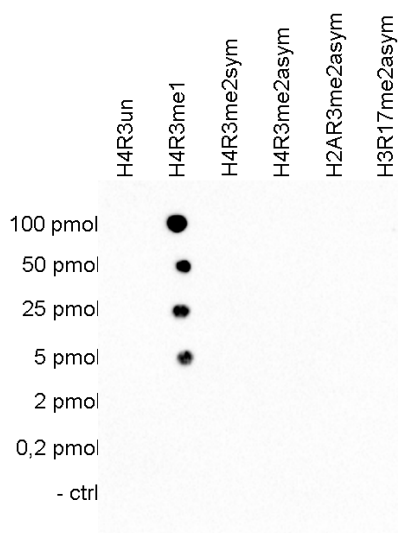


Figure 1. Cross reactivity tests using the Diagenode monoclonal antibody directed against H4R3me1

To test the cross reactivity of the Diagenode antibody against H3K18ac (cat. No. C15210022), a Dot Blot analysis was performed with peptides containing other histone modifications and the unmodified H4R3. One hundred to 0.2 pmol of the respective peptides were spotted on a membrane. The antibody was used at a dilution of 1:10,000. Figure 3 shows a high specificity of the antibody for the modification of interest.

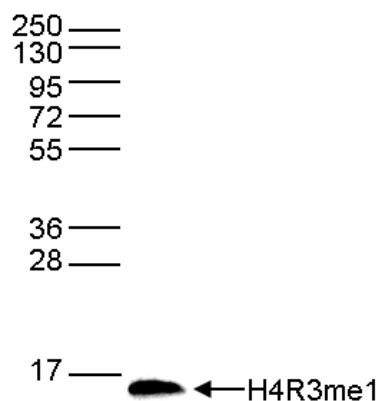


Figure 2. Western blot analysis using the Diagenode monoclonal antibody directed against H4R3me1

Western blot was performed on whole cell extracts (40 µg) from HeLa cells using the Diagenode antibody against H4R3me1 (cat. No. C15210022). The antibody was diluted 1:1,000 in TBS-Tween containing 5% skimmed milk. The position of the protein of interest is shown on the right, the marker (in kDa) is shown on the left.

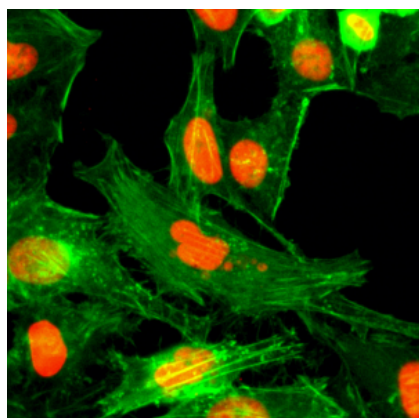


Figure 3. Immunofluorescence using the Diagenode monoclonal antibody directed against H4R3me1

HeLa cells were stained with the Diagenode antibody against H3K18ac (cat. No. C15210020, red) diluted 1:500. Actin was stained with fluorescein phalloidin (green).