

## H3K4me1 polyclonal antibody

### Purified rabbit Polyclonal Antibody

Catalog # ADN10254

## Specification

### H3K4me1 polyclonal antibody - Product Information

|                   |                        |
|-------------------|------------------------|
| Application       | E, DB, WB, IF          |
| Primary Accession | <a href="#">P68431</a> |
| Reactivity        | Human, Mouse           |
| Host              | Rabbit                 |
| Clonality         | Polyclonal             |
| Calculated MW     | 15404                  |

### H3K4me1 polyclonal antibody - Additional Information

**Gene ID** 8350;8351;8352;8353;8354;8355;8356;8357;8358;8968

### Other Names

Histone H3.1, Histone H3/a, Histone H3/b, Histone H3/c, Histone H3/d, Histone H3/f, Histone H3/h, Histone H3/i, Histone H3/j, Histone H3/k, Histone H3/l, HIST1H3A, H3FA

### Target/Specificity

H3K4me1

### Precautions

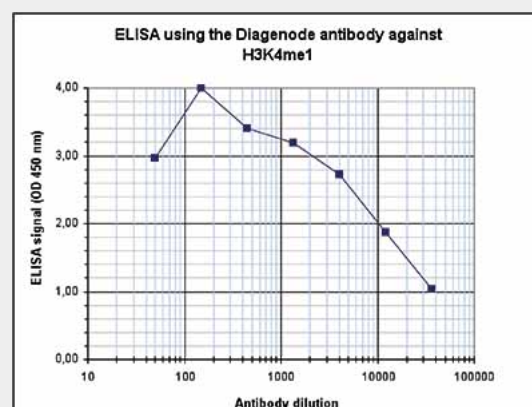
H3K4me1 polyclonal antibody is for research use only and not for use in diagnostic or therapeutic procedures.

### H3K4me1 polyclonal antibody - Protein Information

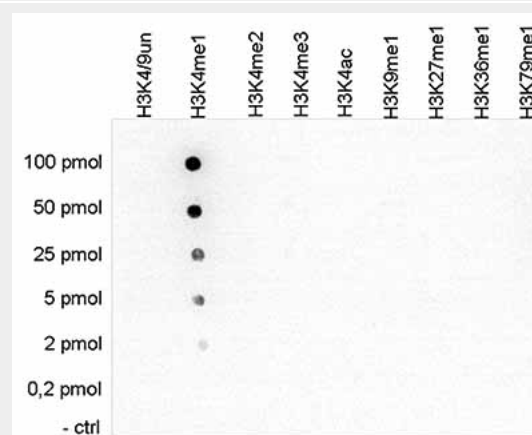
**Name** H3C1 ([HGNC:4766](#))

### Function

Core component of nucleosome. Nucleosomes wrap and compact DNA into chromatin, limiting DNA accessibility to the cellular machineries which require DNA as a template. Histones thereby play a central role in transcription regulation, DNA repair, DNA replication and chromosomal stability. DNA accessibility is regulated via a complex set of post-translational modifications of histones, also called histone code, and



To determine the titer of the antibody, an ELISA was performed using a serial dilution of the Diagenode antibody against H3K4me1 (Cat. No. ADN10254). The antigen used was a peptide containing the histone modification of interest. By plotting the absorbance against the antibody dilution (Figure 3), the titer of the antibody was estimated to be 1:10,300.



To test the cross reactivity of the Diagenode antibody against H3K4me1 (Cat. No. ADN10254), a Dot Blot analysis was performed with peptides containing other histone modifications and the unmodified H3K4. One hundred to 0.2 pmol of the respective peptides were spotted on a membrane. The antibody was used at a dilution of 1:5,000. Figure 4A shows a high

nucleosome remodeling.

#### Cellular Location

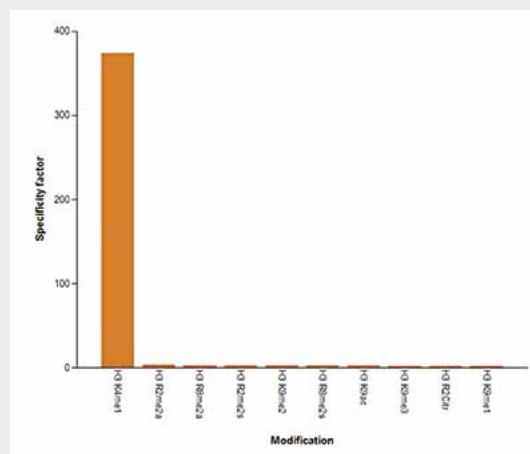
Nucleus. Chromosome.

### H3K4me1 polyclonal antibody - Protocols

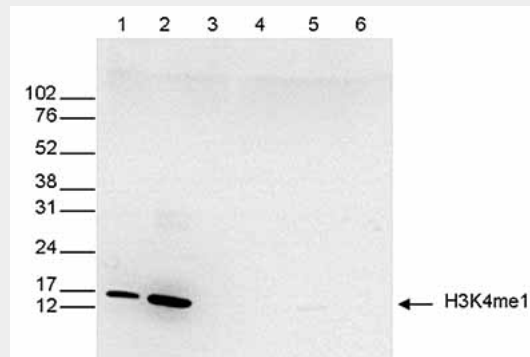
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

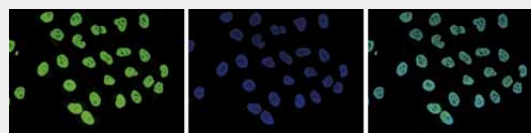
specificity of the antibody for the modification of interest.



The specificity of the antibody was further demonstrated by peptide array analyses on an array containing 384 peptides with different combinations of modifications from histone H3, H4, H2A and H2B. The antibody was used at a dilution of 1:2,000. Figure 4B shows the specificity factor, calculated as the ratio of the average intensity of all spots containing the mark, divided by the average intensity of all spots not containing the mark.



Western blot was performed on whole cell (25 µg, lane 1) and histone extracts (15 µg, lane 2) from HeLa cells, and on 1 µg of recombinant histone H2A, H2B, H3 and H4 (lane 3, 4, 5 and 6, respectively) using the Diagenode antibody against H3K4me1 (Cat. No. ADN10254). The antibody was diluted 1:500 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.



HeLa cells were stained with the Diagenode antibody against H3K4me1 (Cat. No. ADN10254) and with DAPI. Cells were fixed with 4% formaldehyde for 10' and blocked with PBS/TX-100 containing 5% normal goat serum and 1% BSA. The cells were immunofluorescently labeled with the H3K4me1 antibody (left) diluted 1:200 in blocking solution followed by an anti-rabbit antibody conjugated to Alexa488. The middle panel shows staining of the nuclei with DAPI. A merge of the two stainings is shown on the right.