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H4K20me3 polyclonal antibody - Premium

Purified rabbit polyclonal Antibody

Catalog # ADN10282

Specification

H4K20me3 polyclonal antibody - Premium - Product Information

Application	**E, DB, WB, IF**
Primary Accession	P62805
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**11367**

H4K20me3 polyclonal antibody - Premium - Additional Information

Gene ID 121504;554313;8294;8359;8360;8361;8362;8363;8364;8365;8366;8367;8368;8370

Other Names
Histone H4, HIST1H4A, H4/A, H4FA

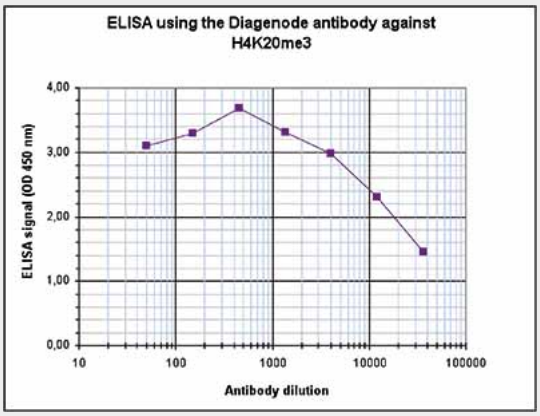
Target/Specificity
H4K20me3

Precautions
H4K20me3 polyclonal antibody - Premium is for research use only and not for use in diagnostic or therapeutic procedures.

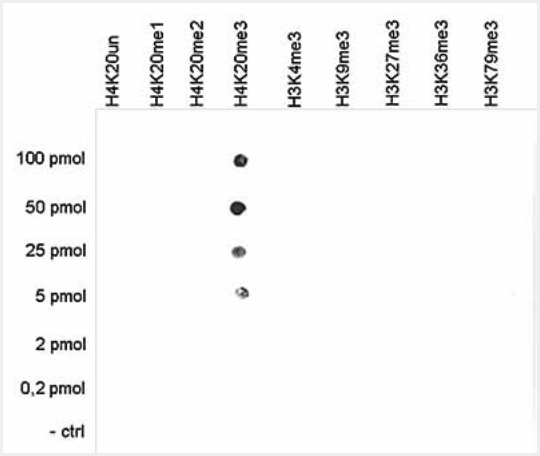
H4K20me3 polyclonal antibody - Premium - Protein Information

Name H4C1

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 nucleosome remodeling.



To determine the titer of the antibody, an ELISA was performed using a serial dilution of the Diagenode antibody directed against H4K20me3 (Cat. No. ADN10282) in antigen coated wells. 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 1:21,700.



To test the cross reactivity of the Diagenode antibody against H4K20me3 (Cat. No. ADN10282), a Dot Blot analysis was performed with peptides containing other histone modifications and the unmodified H4K20. One hundred to 0.2 pmol of the respective peptides were spotted on a membrane. The antibody was used at a dilution of 1:20,000. Figure 4A shows a high

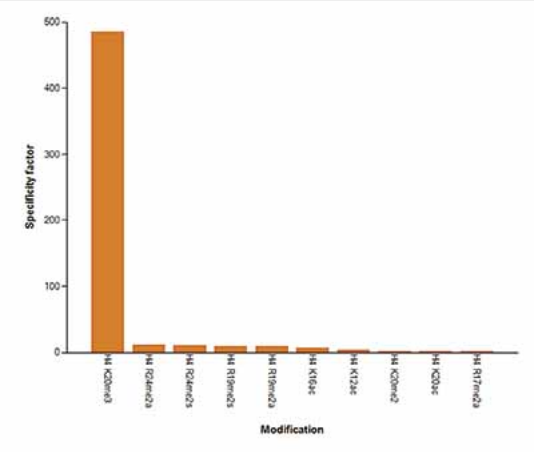
Cellular Location
Nucleus. Chromosome.

H4K20me3 polyclonal antibody - Premium - Protocols

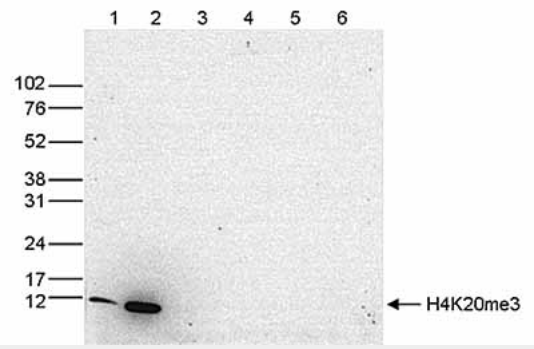
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

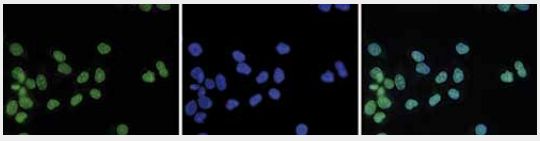
specificity of the antibody for the modification of interest.



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 1:10,000. 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 H4K20me3 (Cat. No. ADN10282). 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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HeLa cells were stained with the Diagenode antibody against H4K20me3 (Cat. No. ADN10282) and with DAPI. Cells were fixed with methanol and blocked with PBS/TX-100 containing 5% normal goat serum and 1% BSA. The cells were immunofluorescently labeled with the H4K20me3 antibody (left) diluted 1:500 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.