

PRODUCT NAME		
H3K27me2/3 monoclonal antibody		
(Histone H3 [di- and tri-methylated lysine 27])		
Cat. No. C15200014 (MAb-014-050)	Type: Monoclonal Isotype: Unknow	Size: 50 µg/ 34 µl
Lot #: 001	Source: Mouse	Concentration: 1.5 µg/µl

Description: Monoclonal antibody raised in mouse against histone H3, di- or trimethylated at lysine 27 (H3K27me2/3), using a KLH-conjugated synthetic peptide.

Specificity: Human: positive
Other species: not tested

Applications	Suggested dilution	References
ChIP	1.5 µg	Ref 1
Dot blotting	1:300	Fig 1
Western blotting	1:1,000	Fig 2
Immunofluorescence	1:100	Ref 1

Purity: Protein G purified monoclonal antibody in PBS containing 0.05% azide and 0.05% ProClin 300.

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.

Availability date: March 02, 2007. Last data sheet update: April 04, 2008

References:

[1] Rougeulle C, Chaumeil J, Sarma K, Allis CD, Reinberg D, Avner P and Heard E (2004) Differential histone H3 Lys-9 and Lys-27 methylation profiles on the X chromosome. *Mol. Cel. Biol.* 24: 5475-5484.

Last data sheet update: February 18, 2010

Target Descripton

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.

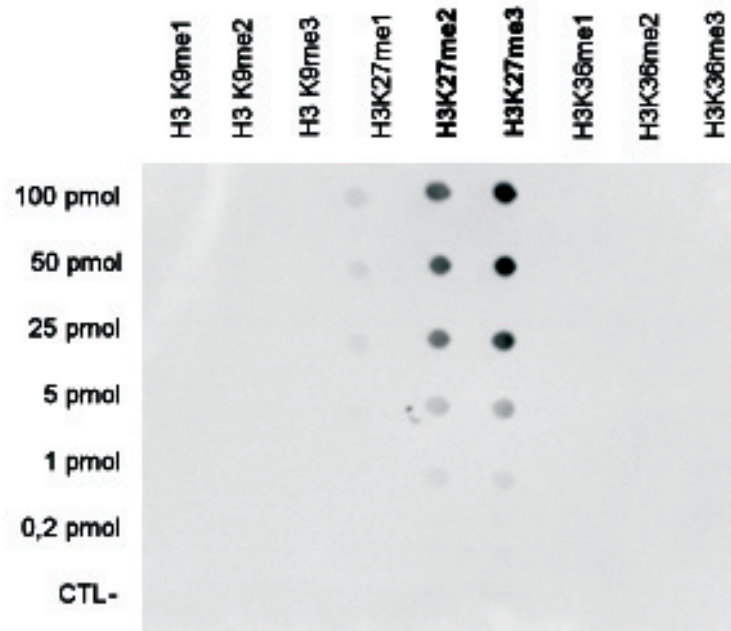
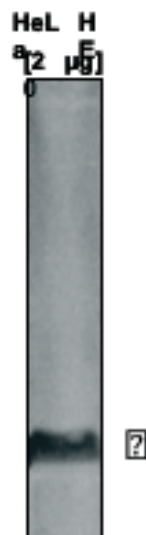


Figure 1

Cross reactivity of the Diagenode monoclonal antibody directed against H3K27me2/3

A Dot Blot analysis was performed to test the cross reactivity of the Diagenode monoclonal antibody against H3K27me2/3 (cat# MAb-014-050) with peptides containing other modifications of histone H3. Other modifications include mono-methylation of lysine 27 and mono-, di- and trimethylation of lysines 9 and 36. One hundred to 0.2 pmol of the peptide containing the respective histone modification were spotted on a membrane. The antibody was used at a dilution of 1:300.

Figure 2



Western blot analysis using the Diagenode monoclonal antibody against H3K27me2/3

Histone extracts from HeLa cells (HeLa HE, 20 μg) were analysed by Western blot using the Diagenode monoclonal antibody against H3K27me2/3 (cat# MAb-013-050) diluted 1:1,000 in TBS-Tween containing 5% skimmed milk. The position of the protein of interest is indicated on the right.