

PRODUCT NAME H3K4me3 polyclonal antibody		
Cat. No. C15310030 (CS-030-100)	Type: Polyclonal	Size: 100 µl
Lot #: 001	Source: Rabbit	Concentration: not determined

Description: Polyclonal antibody raised in rabbit against the region of histone H3 containing the trimethylated lysine 4 (H3K4me3), using a KLH-conjugated synthetic peptide.

Specificity: Human: positive
Other species: not tested

Applications	Suggested dilution	References
Dot blotting	-	Fig 1
Western blotting	1:500	Fig 2

Purity: Whole antiserum from rabbit containing 0.05% azide.

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.

Last data sheet update: April 20, 2010

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. Trimethylation of histone H3K4 is associated with active promoters.

Figure 1

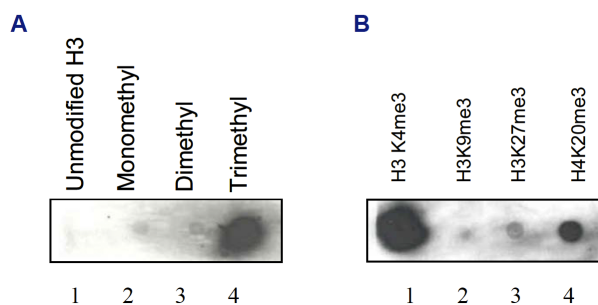


Figure 1

Cross reactivity tests using the Diagenode antibody directed against H3K4me3

A Dot Blot analysis was performed to test the cross reactivity of the Diagenode antibody against H3K4me3 (cat# CS-030-100) with peptides containing other modifications and unmodified sequences of histone H3. Figure 1A shows the dot blot with mono-, di- and tri-methylated lysine 4 and the unmodified histone H3. Figure 1B shows the dot blot with the trimethylated lysines 4, 9 and 27 of histone H3 and lysine 20 of histone H4. These results show a slight cross reaction with the trimethylated lysine 20 of histone H4.

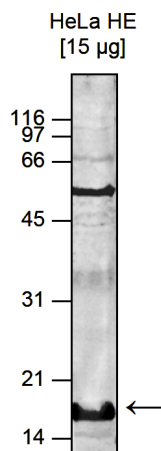


Figure 2

Western blot analysis using the Diagenode antibody directed against H3K4me3

Western blot was performed using histone extracts from HeLa cells (HeLa HE, 15 µg) and the Diagenode antibody against H3K4me3 (cat# CS-030-100) diluted 1:500 in TBS-Tween containing 5% skimmed milk. A molecular weight marker (in kDa) is shown on the left, the position of the protein of interest is shown on the right.