TECHNICAL DATA SHEET

PRODUCT NAME H3pan polyclonal antibody		
Cat. No. C15310059 (CS-059-100)	**Type:** Polyclonal	**Size:** 100 µl
Lot #: A75-001	**Source:** Rabbit	**Concentration:** not determined

Description: Polyclonal antibody raised in rabbit against histone H3, using a KLH-conjugated synthetic peptide containing an unmodified sequence from the C-terminus of the protein.

Specificity: Human: positive
Other species: not tested

Applications	Suggested dilution	References
ELISA	1:50	Fig 1
Immunofluorescence	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: March 11, 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. Histones play a central role in the regulation of transcription, DNA repair, DNA replication and chromosomal stability. These different functions are established via a complex set of post-translational modifications which either directly or indirectly alter chromatin structure and DNA accessibility to facilitate transcriptional activation or repression or other nuclear processes.

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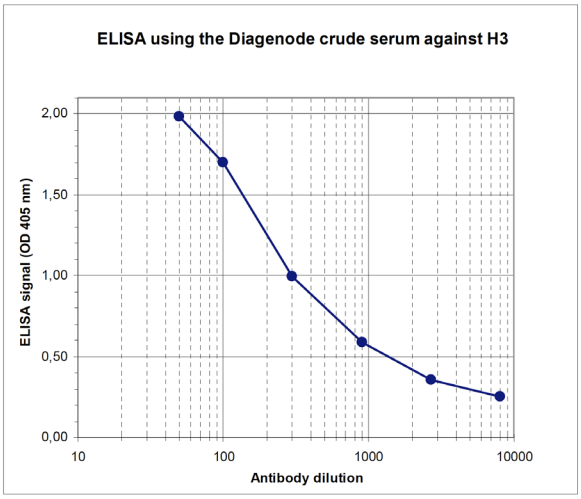

Figure 1
Determination of the titer
To determine the titer of the antibody, an ELISA was performed using a serial dilution of the Diagenode antibody against H3pan (Cat. No. CS-059-100). By plotting the absorbance against the antibody dilution (Figure 1), the titer of the antibody was estimated to be 1:500.

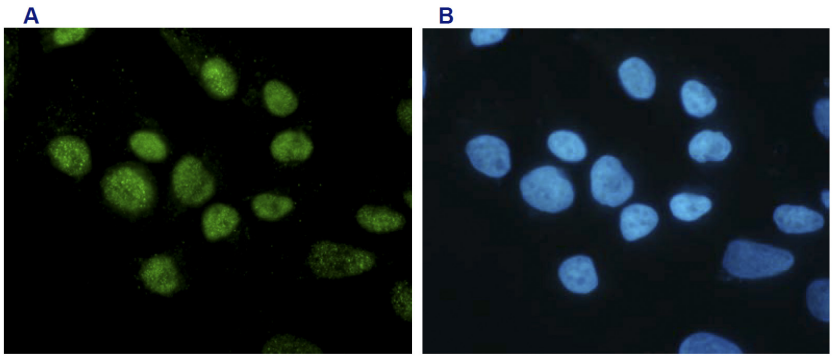

Figure 2
Immunofluorescence using the Diagenode antibody directed against H3pan
HeLA cells were stained with the Diagenode antibody against H3pan (Cat. No. CS-059-100) and with DAPI. Cells were formaldehyde fixed, permeabilized with sodium citrate and Triton X-100 and blocked with PBS containing 2.5% BSA. Figure 4A: cells were immunofluorescently labelled with the H3pan antibody (diluted 1:500 and incubated for 1 hour at room temperature) followed by goat anti-rabbit antibody conjugated to DyLight 488. Figure 4B: Staining of the nuclei with DAPI, which specifically labels DNA.
Both, antibody and DAPI staining are restricted to the nucleus. The antibody is directed against H3, regardless of the presence of modifications. This explains the uniform nuclear distribution of the signal.