

PRODUCT NAME H2Bpan polyclonal antibody		
Cat. No. C15410157 (pAb-157-050)	Type: Polyclonal ChIP-grade	Size: 50 µg/ 34 µl
Lot #: A616-004	Source: Rabbit	Concentration: 1.46 µg/µl

Product description: Polyclonal antibody raised in rabbit against histone H2B using a KLH-conjugated synthetic peptide containing an unmodified sequence from the C-terminal part of the protein.

Specificity: Human: positive
Other species: not tested

Applications	Suggested dilution	References
ChIP*	2 µg/IP	Fig 1
ELISA	1:500	Fig 2
Dot blotting	1:20,000	Fig 3

*Please note that of the optimal antibody amount per IP should be determined by the end-user. We recommend testing 1-5 µg per IP.

Purity: Affinity purified polyclonal 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.

Last data sheet update: April 29, 2011

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.

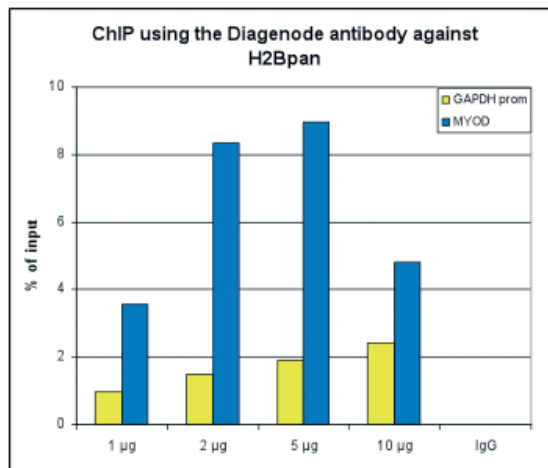


Figure 1

ChIP results obtained with the Diagenode antibody directed against H2Bpan

ChIP assays were performed using human HeLa cells, the Diagenode antibody against H2Bpan (Cat. No. pAb-157-050) and optimized PCR primer sets for qPCR. ChIP was performed with the “LowCell# ChIP” kit (Cat. No. kch-maglow-016) on sheared chromatin from 10,000 cells using the SX-8G IP-Star automated system. A titration of the antibody consisting of 1, 2, 5, and 10 µg per ChIP experiment was analysed. IgG (5 µg/IP) was used as negative IP control. QPCR was performed with primers for the GAPDH promoter and for the inactive MYOD gene. Figure 1 shows the recovery, expressed as a % of input (the relative amount of immunoprecipitated DNA compared to input DNA after qPCR analysis).

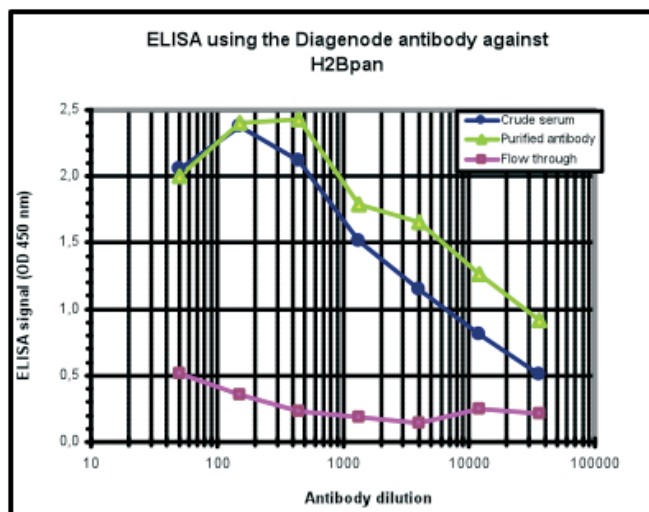


Figure 2

Determination of the titer

To determine the titer of the antibody, an ELISA was performed using a serial dilution of the Diagenode antibody directed against H2Bpan (Cat. No. pAb-157-050), crude serum and flow through in antigen coated wells. By plotting the absorbance against the antibody dilution (Figure 2), the titer of the antibody was estimated to be 1:14,950.

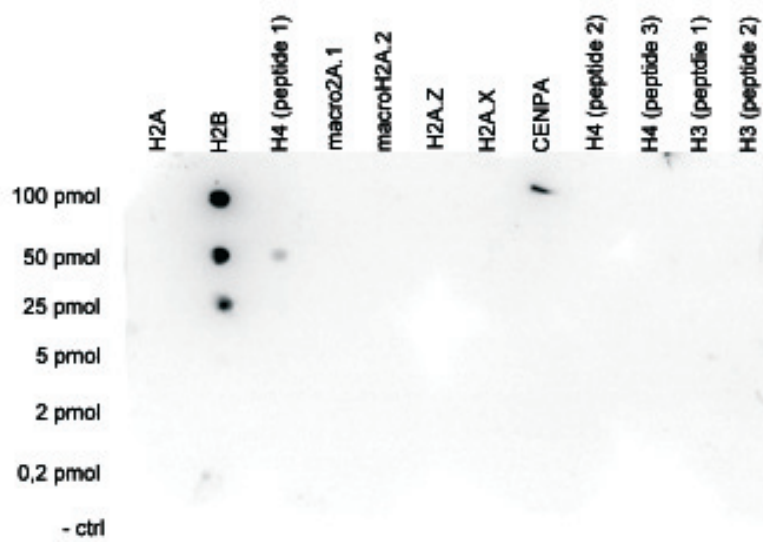


Figure 3

Cross reactivity test using the Diagenode antibody directed against H2Bpan

A Dot Blot analysis was performed to test the cross reactivity of the Diagenode antibody against H2Bpan (Cat. No. pAb-157-050) with the peptide used for immunization of the rabbit and other peptides containing unmodified sequences of different histones. 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 3 shows a high specificity of the antibody for the H2B peptide.