



## Technical Data Sheet

Diagenode sa  
CHU, Tour GIGA B34, 3<sup>e</sup> étage  
Avenue de l'Hôpital, 1  
4000 Liège - Belgium

**Product name:**  
antibody directed against H3  
**(Histone H3)**

<b>Catalog #:</b> pAb-059-050	<b>Type:</b> Polyclonal	<b>Size:</b> 50 µg/ 53 µl
<b>Lot #:</b> A75-001	<b>Source:</b> Rabbit	<b>Concentration:</b> 0.95 µg/µl

**Description:** This antibody has been raised against the C-terminus of unmodified histone H3, using a KLH-conjugated synthetic peptide.

Histones 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 (see overview below).

**Specificity:** Human: positive  
Other species: not tested

Applications	Suggested dilution	References
ELISA	1:400	Fig 1
Dot blotting	Not tested	
Western blotting	1:500	Fig 2
Gel Supershift	Not tested	
Immunocytochemistry	Not tested	
Flow cytometry	Not tested	
Immunoprecipitation	Not tested	
ChIP	Not tested	

**Format:** In solution in PBS including 0.05% azide and 0.05% ProClin 300. The polyclonal antibody has been immunogen affinity purified.

**Storage:** For long storage, store at -20°C/ -80°C. Avoid multiple freeze-thaw cycles.

**Precautions:** This product is for research use only. Not for use in diagnostic or therapeutic procedures.

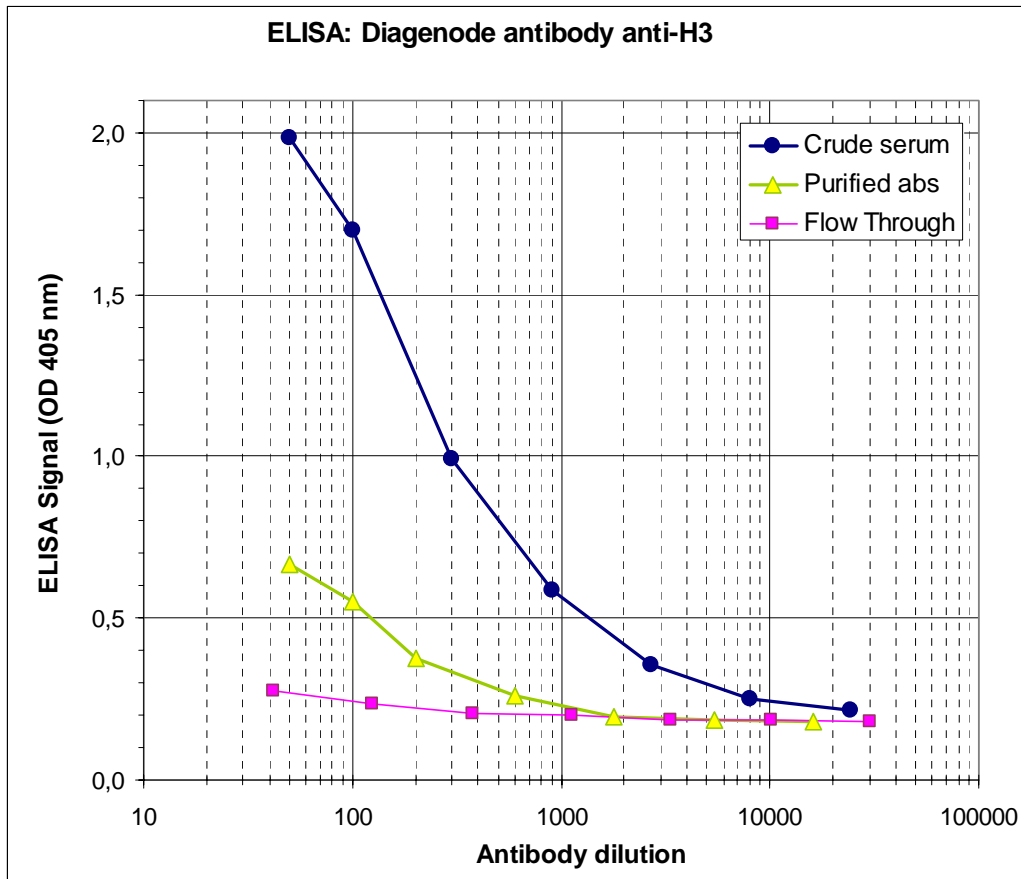
**References:**

- [1] Strahl B. and Allis C. 2000. *Nature* 403(6765):41-5.
- [2] Zheng C. and Hayes J.J. 2003. *J. Biol. Chem.* 278(26):24217-24.

Availability date: May 29, 2007. Last data sheet update: January 30, 2007

Lot #: A75-001: rabbit #: 75/ bleed #: Day 66/ purification day: November 9, 2006

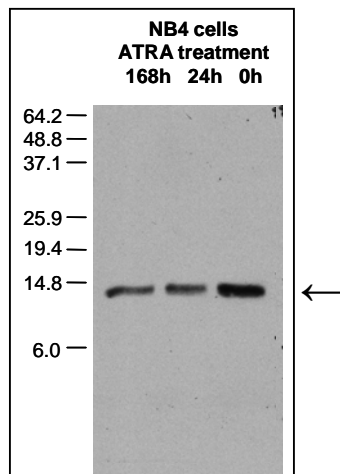
Figure 1



### Antibody titer

ELISA, which stands for Enzyme-Linked Immunosorbent Assay, is a quantitative method used to determine the concentration of a primary antibody using a series of dilutions of crude sera, affinity purified antibody (cat# pAb-059-050) and flow-through in antigen coated wells. We plotted the absorbance versus antibody dilution to estimate the titer of the purified antibody: 1:400 (cat# pAb-059-050).

**Figure 2**



**Western blot analysis using the Diagenode antibody anti-H3.**

NB4 cells (a human promyelocytic leukemia cell line) were treated with all-*trans* retinoic acid (ATRA) for 168 h (lane 1) and 24 h (lane 2) to induce cell differentiation and were non-treated (lane 3). Histone (acid) extracts of treated and untreated cells were analysed by Western blot using the Diagenode antibody anti-H3 (cat# pAb-059-050) at a dilution of 1:500 in TBS-Tween + 5% skimmed milk. On the left side a molecular weight marker is shown (in kDa). The arrow indicates the location of the protein of interest.

**Overview**

Histones are molecules found in the chromosomes of eukaryotic cells. They are rich in the amino acids arginine and lysine and have been greatly conserved during evolution. Histones complex with the DNA and 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 [1,2].