

## H3T45p polyclonal antibody - Pioneer

**Cat. No.** 15410321

**Type:** Polyclonal

**Source:** Rabbit

**Lot #:** A2280P

**Size:** 50 µg /34 µl

**Concentration:** 1.5 µg/µl

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

**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

**Description :** Polyclonal antibody raised in rabbit against the region of histone H3 containing the phosphorylated threonine 45 (H3T45p), using a KLH-conjugated synthetic peptide.

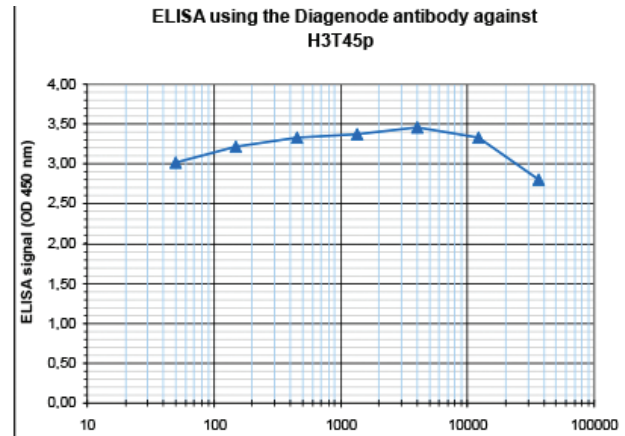
### Applications

Applications	Suggested dilution/amount	Results
ELISA	1:5,000 - 1:10,000	Fig 1
Dot blotting	1:20,000	Fig 2

### Target description

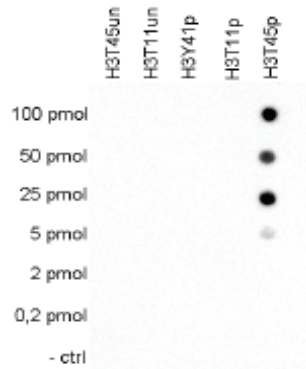
Histones are the main constituents of the protein part of chromosomes of eukaryotic cells. They are rich in the amino acids arginine and lysine and have been greatly conserved during evolution. Histones pack the DNA into tight masses of chromatin. Two core histones of each class H2A, H2B, H3 and H4 assemble 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.

## Results



**Figure 1**  
Determination of the antibody titer

To determine the titer of the antibody, an ELISA was performed using a serial dilution of the Diagenode antibody directed against H3T45p (cat. No. 15410321) in antigen coated wells. The antigen used was a peptide containing the histone modification of interest. By plotting the absorbance against the antibody dilution (Figure 1), the titer of the antibody was estimated to be 1:350,000.



**Figure 2**  
Cross reactivity tests using the Diagenode antibody directed against H3T45p

To test the cross reactivity of the Diagenode antibody against H3T45p (cat. No. 15410321), a Dot Blot analysis was performed with peptides containing other histone modifications and the unmodified H3T45. 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 2 shows a high specificity of the antibody for the modification of interest.

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