

## H4S1p polyclonal antibody

**Cat. No.** C15210004

**Type:** Polyclonal ChIP grade

**Source:** Rabbit

**Lot #:** 001

**Size:** 100 µg/ 100 µl

**Concentration:** 1 µg/µl

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

**Purity:** Protein A purified monoclonal antibody in PBS containing 50% glycerol, 1% BSA and 0.09% 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

**Description:** Monoclonal antibody raised in rabbit against histone H4 phosphorylated at Ser1, using a KLH-conjugated synthetic peptide.

### Applications

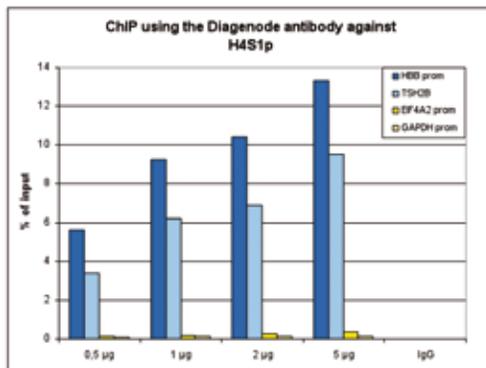
	Suggested dilution	Results
ChIP*	0.5 - 1 µg/ChIP	Fig 1
Western blotting	1:2,000	Fig 2
IF	1:500	Fig 3

\* Please note that the optimal antibody amount per ChIP should be determined by the end-user. We recommend testing 0.5-5 µg per ChIP.

### 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.

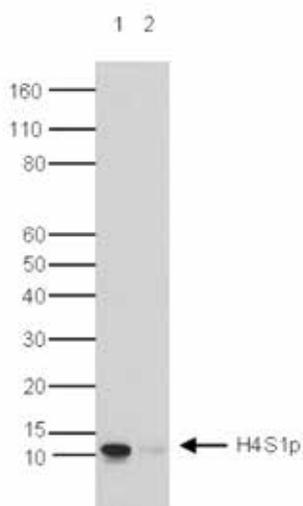
## Results



**Figure 1. ChIP results obtained with the Diagenode monoclonal antibody directed against H4S1p**

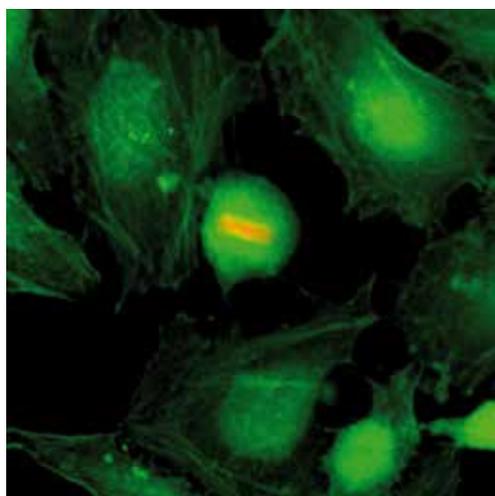
ChIP assays were performed using HeLa cells, the Diagenode antibody against H4S1p (Cat. No. C15210004) and optimized PCR primer sets for qPCR. ChIP was performed with the “iDeal ChIP-seq” kit (Cat. No. C01010051), using sheared chromatin from 1 million cells. A titration consisting of 0.5, 1, 2 and 5 µg of antibody per ChIP experiment was analyzed. IgG (1 µg/IP) was used as a negative IP control. Quantitative PCR was performed with optimized primers for the TSH2B and HBB genes, used as positive controls, and for the promoters of the EIF4A2 and GAPDH genes, used as negative controls.

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. Western blot analysis using the Diagenode monoclonal antibody directed against H4S1p**

Western blot was performed on histone extracts from HeLa cells (lane 1) and on recombinant H4 (lane 2) using the Diagenode monoclonal antibody against H4S1p (Cat. No. C15210004) diluted 1:2,000 in TBS-Tween containing 5% skimmed milk. The position of the protein of interest is indicated on the right; the marker (in kDa) is shown on the left.



**Figure 3. Immunofluorescence using the Diagenode monoclonal antibody directed against H4S1p**

HeLa cells were stained with the Diagenode antibody against H4S1p (Cat. No. C15210004, red) diluted 1:500. Actin filaments were stained with fluorescein phalloidin (green).

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